THE EFFECT OF INFORMATION CHANNEL ON INFORMATION SOURCE SELECTION: STUDENTS’ INFORMATION SEARCH

HEE “ANDY” LEE,* ROB LAW,† AND CHRIS LUK†

*UQ Business School, The University of Queensland, Brisbane, QLD, Australia
†School of Hotel and Tourism Management, The Hong Kong Polytechnic University, Hung Hom, Hong Kong

A plethora of research studies has examined the effect of information channel and information source on information search behavior respectively but scant research that examined them together is located. This study conducted a factorial repeated-measures ANOVA to examine the interaction effect between information channel and information source on students’ internship information search behavior. Empirical findings indicated a significant interaction effect in students’ information use. That is, how information is transmitted (information channel) is more influential than where information is from (information source) is in information use. Also, it was found that the selection of information channel and source is dependent on the type of internship in query. Internal working environment was found most important and external working environment was least important information in internship selection.

Key words: Information search; Information source; Information channel; Internship; Interaction effect

Introduction

Information search takes place when people are uncertain about their decision making (Quintal, Lee, & Soutar, 2009; Urbany, Dickson, & Wilkie, 1989). It involves three important parties: a source (or a sender), a channel (or a medium), and an information seeker (or a receiver). An information source is defined as the originator of communication whereas a medium or channel as where a message is transferred (Shannon, 2001; Sundar & Nass, 2001). Similarly, Lengel and Daft (1988) described a communication medium as a pipeline that liquid (information) is pumped through. Information channels examined in the literature commonly include online and offline channels (Chu, Arce-Urriza, Cebollada-Calvo, & Chintagunta, 2010; Frambach, Roest, & Krishnan, 2007; Nass, Moon, & Carney, 1999). An information seeker searches for information internally and
they seek. In tourism information search, tourists use personal sources (e.g., friends, relatives, travel agents) for accommodations and price information, and mass media (e.g., TV and magazines) for destination decision (J. Lee et al., 2007). In automobile information search, consumers rely on friends and relatives for expressive attributes pertaining to use of the product (e.g., sensory gratification such as excitement) while print ads or magazines for functional attributes pertaining to functions of the product (Ratchford, Talukdar, & Lee, 2001).

Such situational or contextual influence in choice is also proposed in prospect theory (Kahneman & Tversky, 1979; Payne, 1982). That is, interpretation of a problem (e.g., uncertainty in decision making) and evaluation of a solution (e.g., choice of a specific channel and source) are dependent on the context in which they appear.

Given the contextual influence in choice, this study took university students’ internship information search as the study context. Despite the importance of internship in tourism and hospital- ity education learning (Assante, Huffman, & Harp, 2010; Gruman, Barrows, & Reavley, 2009; B. P. Kim, McCleary, & Kaufman, 2010), there is surprisingly little academic research that studies how students conduct internship information search. Existing studies have mainly examined internship experience (Beggs, Ross, & Goodwin, 2008; Cho, 2006; Lam & Ching, 2007; Solnet, Kralj, Kay, & DeVeau, 2009), career decision making (B. P. Kim et al., 2010; Ko, 2007), and experiential learning (Gruman et al., 2009; S. A. Lee, 2008). Specifically, the focus of this study is on the interaction effect between information channel and information source on information choice and use where an information source is defined as a visible presenter of the message or content and an information channel as a delivery medium (Hu & Sundar, 2010; Sundar & Nass, 2001). While information channel and information source are ontologically different (Pornpitakpan, 2004; Wang, Wallther, Pingree, & Hawkins, 2008), the plausible interaction effect between the information channel and the information source on information choice and use has received scant attention in the information search literature. Defining an information source being a visible presenter of the message or content and an information channel being a delivery medium (Hu
INTERACTION BETWEEN INFORMATION CHANNEL AND SOURCE

& Sundar, 2010; Sundar & Nass, 2001), this study examined variations of information use in different channel–source combinations. Furthermore, this study investigated what kinds of internship information matter to students to better understand students’ preferences in internship choice.

Based on cost–benefit principles, this study assumes that the information seeker’s choice of information channel and source is dependent on a trade-off between perceived costs and benefits. In other words, this study did not measure the trade-off, but measured the behavior (i.e., information seeker’s choice) as the product of the trade-off. Rational choice theory (Friedman & Hechter, 1988) and the means–end model (Zeithaml, 1988) resonate with this a priori belief. Findings from this study have theoretical contributions to information search research by broadening it to a specific, yet underdeveloped, area of information search. From a managerial application perspective, this study provides suggestions to the hospitality and tourism industry and schools about advertising strategies.

Literature Review

The Impact of Information Channel on Information Search

Information channel in this study includes online and offline channels (Cheema & Papatla, 2010). The online channel is the electronic medium through which information is transmitted and is analogous to the Internet (e.g., email, websites, and social media). On the other hands, the offline channel in this study includes face-to-face communication (e.g., conversation of two people, group meeting, meeting and conference) and a mediated form of interpersonal communication (e.g., communication by post, telephone call, conference call, TV, radio, print materials, and any other mediated communications but the Internet). Thus, online information search reflects that information search is conducted through the Internet and offline information search denotes information search via the offline channel.

Generally, online information search allows information seekers to access a broader range of information than is unavailable from offline information search (Grewal et al., 2010; J. Lee et al., 2007). Compared to one-way offline media (e.g., print materials, TV, and radio), the online channel provides more interactivity (i.e., two-way communication and personalization), flexibility, and promptness (Grant et al., 2007; Kulviwat, Guo, & Engchanil, 2004). Especially, the interactivity of the online channel allows information seekers, who were traditionally considered receivers, to be part of information creators. Evidently, more travelers choose the online channel to seek travel information from reviews of fellow travelers (Leung, Law, & Lee, 2011) and the online channel becomes the most useful job-seeking method among new graduates, followed by newspapers (McKeown & Lindorff, 2011).

Despite of its advantages, the online channel is not always a preferred medium in information search. Consumers prefer traditional offline channels (e.g., physically visiting a brick-and-mortar shop) before they make a decision on purchasing physical goods. Offline information search allows physical examination and interpersonal communication that are unavailable from the online channel (Chu et al., 2010). Even when physical examination is not required or available—in case of career choice and purchasing experienced goods (e.g., tourism product)—offline channels can be favorable. A face-to-face meeting (offline) is superior in delivering tacit knowledge, which is derived from experience and difficult to be formalized, such as feeling, intuition, and speculation acquired from first-hand experience by previous or current employees and consumers (Bird, 1996; Marwick, 2001; Nonaka, 1994).

While there are distinctive advantages associated with each channel, existing literature suggests that advantages associated with each channel do not always evoke the supposed benefit propositions. For example, physical examination in an offline store is not perceived beneficial by customers who prioritize reduced time and effort of visiting stores, flexible timing for shopping, saving of aggravation, and the impulsive buying in response to an advertisement in information search (Girard, Korgaonkar, & Silverblatt, 2003). Theoretically, the idiosyncratic valuation of information channel use is supported by rational choice theory, suggesting that given that individuals are conceived or intentional, costs and benefits are assessed based on
their own preferences, values, or utilities (Beach & Mitchell, 1978; Friedman & Hechter, 1988; Hauser et al., 1993; Prabha, Connaway, Olszewski, & Jenkins, 2007).

Moreover, personal characteristics of information seekers affect channel use. Extroversion and openness to experience tend to increase the tendency of the online channel use, especially social media use (Correa, Hinsley, & de Zúñiga, 2010). Age is another significant predictor. Bolton et al. (2013) propose that age is the important antecedent of social media use. Ayeh, Au, and Law (2013a) found that young travelers are more likely to use the online channel than older travelers. Also, Internet experience, defined as the extent of time that an individual has been using the Internet, is found to have a negative relationship with online information search (Cheema & Papatla, 2010). These findings imply that young information seekers like university students would show different search behaviors from other groups.

Information search is critical, especially when a decision to be made is on intangible and experienced goods like tourism products and career choice (Lehto et al., 2006). However, existing literature on information search fails to provide a conclusive and generalizable view on information channel choice. While university undergraduate students, who are relatively young, are likely to prefer the online channel and social media in information search, it is difficult to conclude that the online channel is necessarily beneficial, especially in internship information search. Thus, information channel use needs to be examined under a contextual consideration.

The Impact of Information Source on Information Search

Given the objective of this study is to examine the interaction effect between information source and information channel, it is necessary to discuss what information sources have been examined in previous studies. Peterson and Merino (2003) reported four different information sources in consumer purchase information search, including media (e.g., magazines, newspapers, TV, radio), individuals, sellers (e.g., stores, catalogs), and personal hands-on experiences (e.g., product trial). In a tourism context, Gitelson and Crompton (1983) classified information sources that travelers use for travel planning into five categories: friends and relatives, destination-specific literature, broadcast media, and print media. They also described destination-specific literature, broadcast media, and print media as nonpersonal and friends and relatives as personal sources. Osti, Turner, and King (2009) listed information sources that tourists rely on as printing materials (brochure, specialized journals or magazines, travel guidebooks), the Internet, TV, friends and relatives, tour guides, and travel agents. For wine festival visitors, Kruger, Botha, and Saayman (2012) classified travel agents and friends and relatives as decisive sources, whereas printed materials like newspapers, magazines, and guidebooks were classified as contributory sources.

Fodness and Murray (1999) defined contributory sources as useful and necessary, but insufficient information for decision making, and decisive sources as both necessary and sufficient information. According to Kruger et al.’s (2012) finding, personal source is likely to be used in travel decision making. Furthermore, Gitelson and Crompton (1983) found that personal sources are used for information evaluating the destinations and nonpersonal sources for availability and attribute information about destinations. In other studies (Grant et al., 2007; Hjørland, 2007), such qualitative information where personal interpretation is blended, such as travel experience or wine tastes, is referred as subjective information and factual type information, such as price or product specification, as objective information.

Research on job information search suggests a gradual and sequential information search from information source. Boswell, Zimmerman, and Swider (2012) examined that a job seeker starts searching objective information from formal sources (e.g., company websites, organizational representatives) and then makes intensive and active search from interactive information sources (e.g., friends, family, faculty, or social network). Similarly, Marmaros and Sacerdote (2002) found that university students rely on career service, a parent, alumni, professors, a relative, and a friend in that order. Also, Carroll (2013) identified that students searched their job information from university-related source (e.g.,
career services, career fairs, and instructors), advertisement (e.g., the Internet, print media), family and friends, and employers, in that order. Thus, existing literature suggests formal and university-related sources are a preferable to their counterparts.

While the research studies do not examine why job search follows such a particular order, Zacharia, Moukas, and Maes (2000) suggest that it is because job information seekers do not know where to find information, especially when they are less familiar with the topic of a query (Zacharia et al., 2000). Thus, they rely on reputable sources to reduce such difficulties (H. A. Lee, Law, & Murphy, 2011). Once job information seekers acquire objective information about the job, they would move to informal, person-to-person communication sources (i.e., word of mouth) for subjective information because positive word of mouth increased perceived attractiveness of an organization via more personal and vivid information (Van Hoyer & Lievens, 2009).

In summary, information source is dependent on information type. Existing literature suggests that personal sources are suitable for subjective information acquisition whereas nonpersonal sources are better for objective information acquisition. Furthermore, job seekers tend to start with formal sources to acquire objective information and then move to personal sources to acquire subjective information. While it is difficult to itemize specific information types associated with information source, a certain pairing pattern between information source and information type is likely to be expected.

**Internship Information Search**

Internship, also referred to as experience-based, work-based, or work-integrated learning, is important in hospitality and tourism education learning as many universities require internship as a compulsory part of the curriculum, while others offer it as voluntary. University internship programs enable students to learn the ideas via experience and real-time problem solving, to practice scientific methods to better understand reality, and to make abstract concepts explicit through reflection on one’s experience and behavior (Gruman et al., 2009). The experiential learning also suits the learning expectation of students (S. A. Lee, 2008). Compared with the classroom environment, students think industry-based experiential learning assignment is more suitable for learning practical knowledge and organizational function, and establishing realistic career expectations and professional networks of contact. Not only in student learning, but also in determining the quality of undergraduate hospitality management programs, provision of student internships plays an important role (Assante et al., 2010).

Owing to the viral role of internship in higher education learning, a plethora of research is made on internship experiences. Existing research covers what students learn from internships (Tse, 2010), how effective internships are in facilitating students’ learning and career development (Gruman et al., 2009; B. P. Kim et al., 2010), what aspects of internships affect students’ internship satisfaction (Ko, 2007), and what internship partners expect from internship completion (Solnet et al., 2009). Also, previous research reports the gap between students’ expectation of internship before and their experiences during or after internship in the area of subjective work environments (e.g., supervisory support, feeling of being a team member, good peer relationship), objective work environment (e.g., remuneration, housing), and job (e.g., interesting and challenging work, good work experience) (Beggs et al., 2008; Cho, 2006; Lam & Ching, 2007). Findings from the studies suggest that the gap between expectation and experience can be filled by better understanding students’ preferences in and information about internship choice.

Given expectation disconfirmation found in students’ internship, it is important to understand what students search for prior to internships because incorrect information leads to illusions, which result in expectation disconfirmation (Mills & Thomas, 2008). Moreover, realistic information about a job is found to reduce the discrepancy between expectations and experiences from a job (Moser, 2005). The emphasis of existing internship research on a postinternship stage leaves room to study students’ preinternship activities, especially information search behavior prior to internship.

Among the scant literature on internship decision, a study with graduate students in professional psychology shows that geographical location is more important in internship decision than diversity of program (Burnstein, Schoenfeld, Loucks, Stedman,
& Costello, 1981). In travel and tourism, Beggs et al. (2008) show that benefits associated with internships (e.g., salary and housing) and opportunities to offer a full-time position are important components in internship decision. Findings from Richardson’s (2009) study imply that undergraduate students are likely to search for information about enjoyment of a job, friendly working environment, job security, friendly colleagues, and long-term earnings.

In comparison to its importance to learning and future career choice, relatively little research has been conducted on internship information search. Most research on internship has its focus on internship experience. It is critical to identify what internship information is sought and how it is acquired because unmet expectations result from insufficient information on internships (Mills & Thomas, 2008). Thus, research on internship information search, especially information affecting information search behavior, is needed.

Method

Participants and Procedure

An invitation email was sent to a convenience sample of students attending a tourism and hospitality school in a university in Hong Kong. In order to increase the response rate, two emails were sent to remind them of the survey completion. Upon accepting the invitation, participants were asked to answer questions measuring their perception about the internship and information search behavior. Then they reported basic demographic information. A filtering question ensured that participants should participate in the survey only once. The entire questionnaire took around 10 minutes to complete.

Measures

The online questionnaire consisted of three parts. In the first part, participants were asked to rate the importance of items in their internship decision. In the second part, participants were asked to indicate the likelihood of using different sources and channels to acquire the internship information. The last part captured demographic information of participants.

For the measurement of the importance of items in internship decision, we listed 10 items with a 7-point Likert-type scale (1 = very important to 7 = very unimportant) after adapting them from existing research (Beggs et al., 2008; Cho, 2006; Lam & Ching, 2007; Tse, 2010). The 10 items in the questionnaire include “physical working environment”; “functional area of the internship” (e.g., Front Office, F&B, HR); “comprehensive training program”; “competitive remuneration”; “brand of the organization”; “friendly colleagues”; “relevance of internship to career development”; “experience of the company as a consumer”; “distance commuting to the workplace”; and “working in an organization that is affiliated with the university” (e.g., Hotel ICON).

Adapting from previous research (Peterson & Merino, 2003), the likelihood of internship information use from each source and channel was measured with a 7-point Likert-type scale (1 = very likely to 7 = very unlikely). Following the ontology of information source and channel discussed in previous research (Hu & Sundar, 2010; Sundar & Nass, 2001), two levels of information channels (i.e., online and offline) and three levels of information sources (i.e., personal, collective, and company) were presented. As a result, each participant was asked to answer the likelihood of internship information use for all six channel–source combinations (i.e., online–personal, online–collective, online–company, offline–personal, offline–collective, and offline–company).

With regard to information channel, the online channel was operationalized as the Internet and other communication media were categorized as the offline channel. Following Boswell et al.’s (2012) study identifying company websites and organizational representatives as formal source, this study recognized an internship company as a discrete information source. Personal and collective sources were then uncoupled based on existing literature (Actman & Taylor, 1973; Culnan, 1983). In this study, personal sources are within the boundary of personal or private acquaintance and maintain interpersonal reciprocity (Actman & Taylor, 1973; Culnan, 1983) while collective sources are sources who respondents do not know personally but are known collectively. It is feasible for an individual to maintain reciprocity with collective sources, but it would not be interpersonal (i.e., one on one). Thus, six different source–channel combinations were presented.
The examples of each information channel–source in the questionnaire are shown in Table 1.

The demographic information in the last part included gender, the grade that the participant is in, the previous internship experience, the status of permanent residency, Internet experience, and monthly household income. Permanent residency was asked because the school hosts international students from different universities outside Hong Kong under an exchange program scheme.

Prior to data collection, experts in work-integrated education/placement and information technology, respectively, in academic research reviewed the questionnaire. After minor changes based on the expert review, a convenience sample of four graduate students, who graduated from the same school, was recruited for further refinement in wording and terminology. A pilot study was then conducted with a convenience sample of 35 hotel and tourism management students to check whether the questions read fine. Upon receiving no further suggestion on wording and terminology in the questionnaire from the pilot study, we sent an invitation email to the participants of this study.

Results and Analyses

From the invitation of voluntary participation to a total of 606 students, 163 questionnaires were completed, representing a 26.6% response rate. After deleting two outliers (explanation is made in the following paragraph) Table 2 shows descriptive statistics about the participants. The demographic profile of participants does not deviate much from the overall profiles of the students registered at the school. The school usually has more female students (75%) than male and more students in the hospitality program (60%) than the tourism program. Given that the identities of individual participants are unknown, “Others” responses in the major and grade categories were assumedly from students in an exchange program. The majority of international students were from mainland China (54.2%), followed by North/Southeast Asia including Malaysia (16.6%), Taiwan (8.3%), South Korea (8.3%), and Thailand (4.2%), North America (4.2%), and Europe (4.2%).

Prior to further statistical analyses, using Mahalanobis’ distance, outliers were identified with chi-square critical value \( (\chi^2 = 29.59) \) at the specified 0.001 level. Of the 163 cases, two outliers were excluded from the analysis, which resulted in 161 useable cases. A factorial repeated-measures ANOVA was conducted to examine whether information source and channel affect the likelihood of the student’s information use. The assumption that variances of the differences between treatment levels should be equal, or sphericity, should be met in a repeated-measure ANOVA. Mauchly’s test

<table>
<thead>
<tr>
<th>Type</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online–personal</td>
<td>Channel: Emails, social networking sites (e.g., blogs, twitter, Facebook, MySpace, YouTube, Podcast, and other social media).&lt;br&gt;Source: Someone who you know in person.</td>
</tr>
<tr>
<td>Offline–personal</td>
<td>Channel: Face-to-face, phone conversation, or post.&lt;br&gt;Source: Someone who you know in person.</td>
</tr>
<tr>
<td>Online–collective</td>
<td>Channel: Online newspaper, online magazine, blogs, twitter, Facebook, MySpace, Internet forum, YouTube, Podcast, nonpersonalized emails from school and other social media.&lt;br&gt;Source: Someone who you know collectively or do not know in person.</td>
</tr>
<tr>
<td>Offline–collective</td>
<td>Channel: Traditional offline media including newspaper, magazine, TV, radio, and events by schools or nonprofit organizations.&lt;br&gt;Source: Someone who you know collectively and do not know in person.</td>
</tr>
<tr>
<td>Online–company</td>
<td>Channel: The official websites of the companies, company-managed blogs, company-managed tweeters, company-managed Facebook, and other online social media with company accounts.&lt;br&gt;Source: The companies that you want to have internship with.</td>
</tr>
<tr>
<td>Offline–company</td>
<td>Channel: Company brochures and seminars by the companies.&lt;br&gt;Source: The companies that you want to have internship with.</td>
</tr>
<tr>
<td>Personal experiences</td>
<td>Your own internship experiences.</td>
</tr>
</tbody>
</table>
in the likelihood of use was found \(F(1,159) = 0.408, p = 0.524\). Another significant main effect of information channel on the likelihood of use was also found \(F(1,159) = 32.424, p < 0.001\). Contrasts reveal that the likelihood of use of online channel (mean = 5.610) is higher than the offline channel (mean = 5.133) in internship information search \((r = 0.41)\).

There was a significant interaction effect between information source and channel \(F(2,318) = 3.968, p = 0.020\). The significant interaction in this study can be interpreted as information channel (source) has a different effect on the likelihood of use depending on information source (channel) used. The difference between personal and company sources is significant for the online and offline channels \(F(1,159) = 6.092, p = 0.015; r = 0.192\). Figure 1 shows that the change in the likelihood of

---

Table 2
Descriptive Statistics \((N = 161)\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>21.7</td>
</tr>
<tr>
<td>Female</td>
<td>125</td>
<td>77.6</td>
</tr>
<tr>
<td>Refuse to answer</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Major</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel Management (Hospitality/Catering Management)</td>
<td>106</td>
<td>65.8</td>
</tr>
<tr>
<td>Tourism Management</td>
<td>54</td>
<td>33.5</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1</td>
<td>27</td>
<td>16.8</td>
</tr>
<tr>
<td>Year 2</td>
<td>90</td>
<td>55.9</td>
</tr>
<tr>
<td>Year 3</td>
<td>39</td>
<td>24.2</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Previous internship experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>135</td>
<td>83.9</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>16.1</td>
</tr>
<tr>
<td><strong>Residency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>137</td>
<td>85.1</td>
</tr>
<tr>
<td>International</td>
<td>24</td>
<td>14.9</td>
</tr>
<tr>
<td><strong>Hours per week using the internet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 hours</td>
<td>5</td>
<td>3.1</td>
</tr>
<tr>
<td>5–10 hours</td>
<td>30</td>
<td>18.6</td>
</tr>
<tr>
<td>11–20 hours</td>
<td>39</td>
<td>24.2</td>
</tr>
<tr>
<td>21–30 hours</td>
<td>41</td>
<td>24.8</td>
</tr>
<tr>
<td>More than 30 hours</td>
<td>47</td>
<td>29.2</td>
</tr>
<tr>
<td><strong>Average monthly household income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK$10,000 or less</td>
<td>59</td>
<td>36.6</td>
</tr>
<tr>
<td>HK$10,001–20,000</td>
<td>26</td>
<td>16.1</td>
</tr>
<tr>
<td>HK$20,001–30,000</td>
<td>22</td>
<td>13.7</td>
</tr>
<tr>
<td>HK$30,001–40,000</td>
<td>8</td>
<td>5.0</td>
</tr>
<tr>
<td>HK$40,001–50,000</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
<td>HK$50,000 or more</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>Refuse to answer</td>
<td>36</td>
<td>22.4</td>
</tr>
</tbody>
</table>

indicated that the assumption of sphericity was not violated \(\chi^2(2) = 3.518, p = 0.172\). In this repeated ANOVA, the independent variables were information source with three levels (i.e., personal, collective, and company) and information channel with two levels (i.e., online and offline) and the dependent variable was the likelihood of the student using the information channel source.

The results show the significant main effect of information source on the likelihood of use \(F(2,318) = 13.443, p < 0.001\). Contrasts reveal that the likelihood of use of personal source (mean = 5.638) is higher than company source [mean = 5.269; \(F(1,159) = 15.887, p < 0.001; r = 0.30\)] and collective source [mean = 5.209; \(F(1,159) = 26.888, p < 0.001; r = 0.38\)], respectively. No difference between the collective and the company sources in the likelihood of use was found \(F(1,159) = 0.408, p = 0.524\). Another significant main effect of information channel on the likelihood of use was also found \(F(1,159) = 32.424, p < 0.001\). Contrasts reveal that the likelihood of use of online channel (mean = 5.610) is higher than the offline channel (mean = 5.133) in internship information search \((r = 0.41)\).
use of company source between online and offline channels is much larger than in personal source. Also, the difference between personal and collective sources was significant for the online and offline channels \(F(1,159) = 5.734, p = 0.018; r = 0.187\). Compared to online channel, the offline channel lowered the likelihood of use of collective source significantly more than that of personal source. However, all contrasts from the analysis yield small \(r \leq 0.10\) to medium \(r \leq 0.30\) effect sizes (Field, 2009).

In order to examine how the importance of factors that students consider in their internship decision is related to choice of information source and channel, we conducted principal component analysis, followed by Spearman’s rho. Exploratory factor analysis was conducted to determine underlying structures for measures on what hospitality and tourism students consider important in their internship decision. Principal components analysis was conducted utilizing a varimax rotation. Prior to reading the result, the correlation matrix was examined to ensure that all variables examined with the factor analysis are correlated. Of the 10 variables, “brand of the organization” was not correlated with any other variables and its anti-image correlation was below the commonly accepted threshold of 0.5 (Field, 2009). After excluding “brand of the organization” from further factor analysis, we found that the sample size was adequate for factor analysis; the Kaiser-Meyer-Olkin (KMO) statistics was greater than 0.60 and Bartlett’s test was significant at the specified 0.001 level.

The analysis produced a three-factor solution explaining a total of 53.77% of the variance for the entire set of variables after rotation. The first factor accounted for 20.09% of the total variance in the original variables, the second factor accounted for 17.80%, and the third factor accounted for 15.88%. Table 3 presents loadings for each factor. The first factor consisted of four variables out of the nine. These variables had positive loadings and were labeled “External working environment (EWE).” The second factor included two variables with positive loadings. The second factor was labeled “Internal working environment (IWE).” The third factor

Figure 1. The interaction of information channel and information source in the likelihood of use.
are most likely to be used to acquire internship information. Although it is presumed that the company offering internships is the best source to acquire internship information, participants tend to use personal sources regardless of information channel. Also, participants show no difference between collective and company sources in likelihood of use. In terms of information channel, the online channel is found preferable to the offline one.

An interesting finding from this study is the interaction effect between information channel and information source on the likelihood of use. Given that the effect of information channel on likelihood of use is stronger than the effect of information source (along with a significant interaction effect between information channel and source), the use of information sources is dependent on the channel where the information is delivered. That is, when had the remaining three variables and was labeled “Coverage of internship (COI).”

The variables within each factor were summated and then averaged for further analyses. A repeated-measures comparison showed a significant difference in perceived importance among factors $[F(2,320) = 212.667, p < 0.001]$. Results from post hoc comparisons identified that IWE was perceived most important (mean = 6.302, SD = 0.589), followed by COI (mean = 6.029, SD = 0.587), and EWE (mean = 5.041, SD = 0.806).

Controlling for two factors at a time, a series of partial correlations between a factor (i.e., EWE, OWE, or COI) and the six information channel–source combinations (i.e., online–personal, offline–personal, online–collective, offline–collective, online–company, and offline–company) was conducted. A two-tailed test was made given its difficulty in predicting a directional relationship between the two variables involved in the correlation analysis (Field, 2009). Significant relationships between EWE and most information channel–source combinations, except online–company combination, are shown in Table 4. Also, a significant relationship between IWE and online–company combination ($r = 0.168$), and between COI and online–personal combination ($r = 0.158$), respectively, was identified.

Discussion

Results from the analyses show that personal source, compared to collective and company sources, are most likely to be used to acquire internship information. Although it is presumed that the company offering internships is the best source to acquire internship information, participants tend to use personal sources regardless of information channel. Also, participants show no difference between collective and company sources in likelihood of use. In terms of information channel, the online channel is found preferable to the offline one.

An interesting finding from this study is the interaction effect between information channel and information source on the likelihood of use. Given that the effect of information channel on likelihood of use is stronger than the effect of information source (along with a significant interaction effect between information channel and source), the use of information sources is dependent on the channel where the information is delivered. That is, when
Cost saving becomes more important than the quality of information when information is not critical to decision making or decision making itself is not very important. Given the perceived importance of three factors (i.e., EWE, IWE, and COI) in internship decision making, we can infer that participants pay attention to cost saving because decision making itself is not important enough to overcome associated costs to acquire the information. This assertion is consistent with existing research postulating students’ insufficient knowledge, disinterest in or misunderstanding of the value and importance of internships (Aggett & Busby, 2011; Urbany et al., 1989) and elaboration likelihood model (ELM). According to ELM, those who are motivated and involved in decision making are willing to put more cognitive effort into the information process while those who are less involved tend to use cues or heuristics (Chaiken & Maheswaran, 1994; Hu & Sundar, 2010; Petty & Cacioppo, 1986; Wathen & Burkell, 2002). Due to disinterest and lack of motivation, participants are likely to use information channel–source that requires less cognitive and search efforts.

Another interesting finding is that participants made more comprehensive information search for low-value information (or perceived less important in internship decision making) than high-value information (or perceive more important). While EWE was perceived least important among factors identified, the more important EWE was perceived in internship decision making, the more intensively, in terms of number and the extent of use, participants utilize channel–source combinations. On the contrary, the most important factor, IWE, has a positive correlation with only one channel–source (i.e., online–personal) combination. A similar relation was observed with COI: the more important COI is perceived, the more likely participants are to use online–personal combination, but not other combinations.

The finding further presents a discussion point in internship evaluation. While existing literature posits a positive relationship between information value and the comprehensive information search (Newman, 1977; Xia & Monroe, 2005), no comprehensive information search for more important factors (i.e., IWE and COI) was found among participants in this study. Insufficient knowledge resulting
from limited information search escalates dissatisfaction with performance because uncertainty in decision making tends to lower perception of actual performance (Patterson, Johnson, & Spreng, 1997). Moreover, given that resources that individuals can draw on are usually from personal networks and those who are congruent with (Erisen & Erisen, 2012; Wang et al., 2008) participants’ preference in use, personal source found in this study resonates with the assertion about insufficient information about internships. Based on expectancy disconfirmation theory (Van Raaij, 1991), the finding projects that hospitality and tourism students who are undertaking or completed internships are still likely to show dissatisfaction with their internship experience.

In consumer shopping context, existing literature shows that online collective source is more influential on decision making than online company source because the former is perceived to have greater credibility, relevance, and ability to generate empathy (Bickart & Schindler, 2001). This study, however, found a contradictory result: that participants showed no difference in use between online collective and online company source to acquire internship information.

Conclusions

This study took an exploratory approach to examine the interaction effect on likelihood of use between information channel and source in internship information search. While personal source, regardless of online or offline, was the primary one to acquire internship information, collective and company sources became as preferable as personal source when information from the sources was available online. Of three factors that hospitality and tourism students consider important in their internship decision (i.e., external and internal working environments, and coverage of internship) identified, information about internal working environment was the most important one in internship decision making.

This study has a theoretical contribution by filling the gap in information search behavior research where simultaneous examination of information channel and source is lacking and where the internship information search context is lacking. While existing studies have postulated that credibility is the main determinant of source choice (Pornpitakpan, 2004; Wang et al., 2008; Wathen & Burkell, 2002), this study examined that source choice is also affected by how the source is reached. Thus, findings from this study imply that convenience matters most in internship information search. Moreover, this study suggests that lack of motivation would exert a cost saving-oriented strategy, rather than benefit-oriented one.

This study yields managerial implications for schools and internship partners. Although students’ interest in internship was not directly examined in this study, findings from this study infer that students’ disinterest in internships and lack of motivation for related information search would cause “irrational” information search behavior. The reason why information search is described as “irrational” is because of students’ preference in use of personal source over schools and internship partners that would have most accurate objective information such as external environments and coverage of internship. Thus, schools need to practice strategies to increase students’ interest in and knowledge about internship. The values of internship programs on learning and future career can be explicitly delivered via online channel. Given the finding that participants were reluctant to utilize information from schools, universities may need to promote their career service centers where students easily visit and acquire information. Internship placement officers at individual schools and departments may need to update internship information frequently and develop online tools (e.g., dedicate websites, social media, mobile apps) to feed internship information to students. Reports from students who completed internships can be shared online with students who plan to take internships as they would provide insights about the companies. An informal meeting between the two groups of student can be arranged since face-to-face communication is suitable to deliver tacit knowledge (e.g., internal working experience).

For internship partners, they may want to develop communication strategies to effectively provide working environments that students are mostly looking for. Internship partners can invite potential interns to view their premises and arrange an informal meeting between frontline employees and
students. It would not only provide information that students want, but also show the reality of the industries so that students can adjust expectation about future internship experience. A strategic affiliation between a school and an internship partner will attract more students to an internship program as it is an influential component in external working environment. Online communication tools utilizing Web 2.0 (e.g., blogs, Facebook, discussion boards) can be implemented as part of human resource strategies.

Limitations and Recommendations for Future Research

Like any other studies, this study is not free of limitations. First, the relatively small sample size leads to a limitation on the generalizability of the findings. While international students were recruited, a majority reflects views of local Hong Kong students. Also, the limited number of responses from students without internship experience prevented further investigation between students with and without internship experience. Second, this study is unable to explain how satisfactory it would be to use a particular information channel–source. Higher likelihood of use may infer higher satisfaction with its use, but this study had no direct measurement items for use satisfaction. While students’ disinterest in internship was inferred from exiting research, participants’ actual interest in internship was not measured in this study.

Future research should engage in survey deployment to a larger sample. However, it would be difficult to achieve its goal if it is made in a hospitality and tourism school at a university, because student enrollment in a hospitality and tourism school at any university would be limited. One way to achieve the goal is taking a longitudinal approach. Depending on academic schedule, a survey can be conducted every quarter, semester, trimester, or year when a new enrollment is made. Another way is taking a cross-sectional approach. An identical survey can be distributed to hospitality and tourism programs and schools at different universities. It would not only be able to recruit a large group of participants, but also allow researchers to examine a cultural aspect of internship information search. However, a cultural aspect should be controlled.

References


