

**Understanding the Role of Corporate Information Agencies in
Competitive Intelligence Practices**

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Final Report

Submitted by

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Abstract

The traditional value of corporate information agencies is increasingly challenged by economic stresses and the rise of digital environments. To sustain viability and institutional relevance, information professionals are encouraged to explore some emergent and non-traditional information practices. Competitive intelligence (CI) is one of them. However, we have very limited knowledge about the role of corporate information agencies in CI practices. The knowledge gap obviously hinders the growth of information professionals in this realm and may lead to ill-conceived development policies. This report describes a survey study investigating the value of corporate information agencies in the CI context from a utilization standpoint. Results obtained from 63 CI practitioners and 81 information professionals reveal a consistently high awareness, use, and perceived usefulness of corporate information agencies, indicating a strong connection between CI and information professionals, as well as a great potential to create a synergetic combination of the resources that make the organization excel.

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Understanding the Role of Corporate Information Agencies in Competitive Intelligence Practices: Final Report

1. Introduction

Corporate information agencies, such as corporate libraries, information centers, or knowledge centers, typically provide intellectual services within an organization focusing on information access and management (Edgar, 2004). *Competitive intelligence (CI)* concentrates on collecting, analyzing, and distributing information on the external environment in which an organization operates (Fleisher and Bensoussan, 2007). These two concepts intersect in the area of information practice which aims to make the organization excel.

In 2006 the Society of Competitive Intelligence Professionals (SCIP, currently named as Strategic and Competitive Intelligence Professionals) conducted a survey of its members to establish a baseline understanding of whom CI professionals are and what they do. One of their findings was that 35 (6.7%) of 520 respondents reported to information services or information centers, and their job titles including information specialist, librarian, consultant, or variations of director or vice president (SCIP, 2006, pp. 117-121). Likewise, in another study conducted in 2011 on the job titles of SCIP members, it was found that out of 1,260 collected job titles, 38 (3%) were related to corporate libraries or information centers (Jin, to be submitted). Based on these findings, a couple of interpretive assumptions can be made: (1) corporate information agencies play a role in the CI process and some information professionals (IP) have joined the ranks of CI professionals; and (2) the IP involvement in CI is still essentially a minority; the majority of CI professionals are non-IPs.

As a result, such questions should be asked: what is the role of corporate information agencies in CI practices? And, do the majority of CI practitioners use corporate information agencies in any way if they are available in their organization? This piece of research attempts to address these questions via a survey approach. In the following sections, a definitional framework will first be given in order to illustrate how those key concepts are operationally defined in this study. After that, the research background containing a brief review of the literature will be provided. Then the research methods and preliminary results of the study will be presented. In the last section, a concluding summary with key findings, implications, and recommendations will be made.

2. Operational Definitions

To improve readability, the key terms that emerge throughout this text are operationally defined as below.

- Competitive intelligence (CI): The process by which an organization systematically and legally collects, organizes, analyzes, and distributes information about its competitors or competitive environment in order to obtain or maintain its competitive advantage on the marketplace. In this study, CI is interchangeably used with business intelligence (BI), market/marketing intelligence (MI), and strategic intelligence (SI).
- Competitive intelligence practitioner: A member of the Strategic and Competitive Intelligence Professionals (SCIP) who is actively involved in the CI process in a corporate setting and whose major job responsibilities are to develop CI. Quite often, such individual holds a job title like CI/BI/MI analyst/manager.
- Competitive intelligence professional: A general term to refer to those individuals who are highly involved in CI activities.
- Corporate information agency: A department or body offering information services to satisfy the information needs of the organization (e.g., corporate library, corporate information center, knowledge center, research center, etc.). Throughout this report, the term *information agency* is sometimes used as its synonym or substitution.
- Information professional: A member of the Special Libraries Association (SLA) or SCIP whose job title is librarian, information specialist or analyst, research analyst, knowledge manager, or equivalent. He or she usually has obtained special training and skills in information organization, information retrieval, and information management in order to provide quality information research and reference services.
- Information resource: Information channels or data sets that are acquired, developed, and/or managed by information professionals in the organization. This includes both licensed (e.g., fee-based/subscription databases, journals, books, directories) and in-house edited contents and data sets that are created for use by the organization only (e.g., web portal that aggregates useful links, wikis, or blogs).
- Information service/product: The service or product that was developed or produced or provided by information professionals (e.g., reference service, monitoring/training report, alerts, etc.).
- Information agency resources: A general term to refer to any type of single or combination of information resource or information service/product.

3. Research Context

This section is organized into three sub-sections, including a description about the general background in which this study is embedded, a problem statement, and a review of the literature.

3.1 Background

Corporate information agencies are often faced with two challenges. One is related to the **value** that they provide to their parent organization. The other is prompted by the emergent and rapidly evolving **information technologies**. These two challenges intertwine and are interdependent. On one hand, corporate information agencies tend to be more sensitive to economic stresses than other departments within an organization (Woods, 1972). During economic downturns, they are frequently regarded as luxury or a waste to keep (Day, 1936). If they wish to avoid closure or severe budget cuts, they must prove their worth with solid evidence (Matarazzo, 1981). On the other hand, the rise of the digital environment has substantially disrupted the traditional value of corporate libraries (Hill, 1993). Company employees become increasingly self-reliant on accessing various types of information via the Internet (Margulies, 2006). This environmental change has gradually removed libraries from the research process, which leads to a questioning of their value (Housewright, 2009).

These challenges have prompted IPs to spend a significant amount of time in justifying their existence and managing stakeholders. Today's corporate information agencies need to adapt to a fast-moving information environment and to be successful they have to undergo constant transformation (Davenport and Prusack, 1993; Helfer, 1998; Matarazzo and Pearlstein, 2007). Specifically, in order to sustain their viability and institutional relevance IPs must explore some emergent and non-traditional information practices to avoid a discrepancy between what the parent organization needs and what they can offer (Housewright, 2009; Kassel, 2003; Margulies, 2006).

CI could be one such practice. In recent years, many IPs have demonstrated their interests in CI and hope to expand their involvement in this domain or fully transition into CI positions (Information Outlook, 2008). The Special Libraries Association (SLA) and the American Association of Law Librarians (AALL) have all established CI divisions or chapters to answer such demand from their members. However, statistics show that IPs still keep a low profile in CI. If they wish to play a bigger role in this sector, it would be necessary to explore the relationships among corporate information agencies, IPs, and CI practitioners.

3.2 Research Problem

This study focuses on the role of corporate information agencies in the CI context. Historically, there are different views regarding this issue. From the perspective of IPs, one group is of the opinion that CI emphasizes on manipulating, analyzing, and interpreting information but IPs may not be good at these procedures (Jin, 2008), while the other considers that IPs enjoy advantages in information searching and management, which are equally important to CI jobs, but these skills are often overlooked or less credited by CI practitioners

(Chitwood, 1992; Herringto, 2008). From the perspective of CI practitioners, one group believes that IPs' expertise on information sources should be valued and integrated into regular CI practices (Fuld, 1995; Prescott, 2001; Rothberg et al, 2008), while the other group expresses the view that CI could be a specific business domain, rather than a general information domain, so IPs' librarian stereotype may not fit CI tasks that require extensive analytical reasoning (Jin, 2008). So far no empirically supported theory has yet been put forward to justify the value of corporate information agencies in the CI context. This study attempts to provide some insight into this convoluted issue.

3.3 Relevant Studies

This study is grounded in the research literature of special libraries and CI practices. The major reviewed themes include: (1) value of special libraries; and (2) information services in the CI context.

3.3.1 Value of Special Libraries

Historically, numerous efforts have been made to examine the value of special libraries. One of the earliest and the most classic efforts was conducted by Matarazzo (1981), who explored the decision-making process that led to the closing of five corporate libraries. Using a case study approach, he systematically interviewed individuals surrounding these closure decisions. One consistent theme related to these five closures was that none of the libraries evaluated their services against the needs of the parent organization. This absence of evaluation can trigger a dissonance between needs and services and further create a relevance crisis leading to an eventual closure.

Among other studies, quite a few are literature review-based (e.g., Edgar 2004a, 2004b; Griffiths, 1982; Keyes, 1995; Koenig, 1990; Matthew, 2002; Strouse, 2001). They have identified and described a series of methods of how to determine the monetary value of special libraries, such as calculation of return on investment (ROI), cost-benefit analysis, time-saved measurement, and detection of correlations between corporate productivity and special library expenses. These evaluations are usually general and not specific to any particular user group.

In contrast, several studies have targeted different specific user groups in the corporate settings to investigate their impressions of the corporate library. In 1990 and 1995 respectively, Matarazzo and Prusack published two national survey reports about how corporate libraries were valued by senior management (Matarazzo et al, 1990; Matarazzo and Prusack, 1995). They found that about one third of responding managers used "quality of information, including accuracy and timeliness" as a criterion to evaluate corporate librarians' performance. Although no consensus was reached on which library service was the most valuable to the firm, 36% of respondents believed that the business receives the biggest value when the librarian has solid business knowledge (Matarazzo and Prusak, 1995). Ironically, one result that merits mentioning is that 97% of senior managers surveyed at that time would not have added a CI service to their corporate libraries.

Auster and Choo (1993) reported on a survey on the environmental scanning activities of 207 Canadian CEOs in the publishing and telecommunications industries. When they measured variables of “frequency of using source to scan,” “perceived source accessibility,” and “perceived source quality,” it was found that the response score of “company library” as an information source was, respectively, low (ranked 13th out of 16 sources), moderate (ranked 8th out of 16), and low (ranked 12th out of 16). In another report, Choo (1994) singled out 67 CEOs in the telecommunications industry to investigate their perceptions and uses of information sources in their environmental scanning behavior. It revealed that only 18% of responding CEOs have used their company library. None of the 67 surveyed executives mentioned the need for a corporate librarian nor were aware of the services that a corporate librarian could provide (Choo, 1994, p.34). Davenport and Prusack (1993) attributed the “marginal role” that many corporate libraries play to a place-bound model called “warehouse” model, which was originated from an industrial era but has been “outmoded” in this information age. Alternatively, they argued that to adapt to the changed conditions, corporate libraries must develop new models such as the “expertise center” model and “network” model.

Inconsistently, in a study focusing on five Canadian bank libraries in Toronto, Marshall (1993) discovered that information provided by these libraries was perceived valuable by the bankers on many occasions, such as to proceed to the next step on a project, to decide upon a course of action, to detect new business opportunities, and particularly, to make decisions on whether or not to lend money. In addition, she studied various health libraries and information services and found the same positive opinions on value (Marshall, 2007). Similarly, through surveying on 120 LIS directors and 101 institutional administrators, Abels et al (2004) developed a comprehensive approach to identify and communicate the value of medical and health sciences libraries. This approach requires linking the contributions and impacts of the information agency to those strategic goals of the parent organization and has the potential to be adapted to other corporate settings.

Synthesizing findings from the above studies, the following points are highlighted. First, identifying and demonstrating its value is a permanent job for any corporate library. Second, the value must be related to its parent organization’s strategic goals and tactical needs. Third, the value was mostly discussed from the monetary side, rarely from the utility (or use) side. Lastly, the perceptions and uses of a corporate library as an information source may vary by different user groups, industries, and other factors.

3.3.2 Information Services in the CI Context

In the library and information science (LIS) literature, intelligence practice, including CI, is not an unknown term. Quite a number of authors consider that intelligence work and LIS have homogeneous connections (Cronin, 2011; Davies, 2002; Jin and Bouthillier, in press; Strickland, 2005; William and Lipetz, 2005).

Specific to CI, Bergeron and Hill (2002) made a thorough review of this topic from the LIS perspective. Adapting to Taylor’s (1986) Value-adding Model, they conceptualized CI tasks as a series of information processing activities (i.e., organizing processes, analyzing processes, judgmental processes, and decision processes) to which value is gradually added until original

data is transformed into actionable intelligence. Therefore, IPs may play a critical role in the organizing processes (i.e., grouping, classifying relating, formatting, signaling and displaying) and part of the analyzing processes (e.g., evaluating, validating, comparing, interpreting, synthesizing).

Westney and Ghoshal (1994) surveyed the competitor analysis system in three large corporations to investigate the structure and processes of the system. They interviewed about 150 people in three groups: (1) CI analysts, (2) CI managers, and (3) CI clients. The results of the study reveal that CI activities can be grouped into three categories: (1) data management (i.e., acquisition, classification, storage, retrieval, editing, verification and quality control, presentation, aggregation, distribution, and assessment), (2) analysis (i.e., synthesis, hypothesis, and assumption building and testing), and (3) implication (i.e., how the company could and should respond to different situations). The study also found that the CI analysts were kept busy on data management activities, and lacked time to undertake analysis and implication activities. Ironically, the researchers did not recommend involvement of IPs to improve the efficiency of data management. Instead, they placed their faith in information technology.

Using an ethnographic approach, Schultze (2000) observed information practices of two groups of professionals who produce information objects: CI analysts and corporate librarians in a Fortune 500 company. She described the two groups as functioning in parallel with little interdisciplinary communication, portraying the corporate librarians' primary jobs as "sourcing" and "searching" and those of CI analysts' as "consulting" and "advising." One identified distinction between these two groups, according to the researcher, is that "CI people see it as their role to inform people when important events happen (i.e., not supply information in demand, but Just in Time information) ... [while librarians] are in the role of delivering routine information (i.e., periodic, automatic, weekly, monthly) as well as information on demand" (Schultze, 2000, p.25). However, no overlap between CI people and librarians was observed in that study.

Marin and Poulter (2004) administrated an online survey supplemented with email interviews to SCIP members to investigate how CI is distributed in organizations. Three major findings were arrived at: (1) the top used CI sources are news providers, corporate web sites, trade publications, competitors' annual reports, employees, trade shows, and clients; (2) the top used vehicles of CI distribution are email, individualized reports as requested, intranet, and newsletters; and (3) the distribution of CI can be aided by technology, but should be person-focused. More importantly, the authors reach a conclusion that CI should be practiced in a form of knowledge management, rather than information provision.

Jin (2008) studied information work activities of 28 loosely-defined CI professionals in Canada, including 21 CI practitioners and 7 IPs. The study results showed that there seemed to be an inherent tension between these two groups, respectively represented by MBA and MLIS graduates. In-depth interviews have disclosed some disagreements and conflicts between the groups. Some CI practitioners tended to question, and even mistrust, the qualifications of IPs in handling CI work. Some IPs also expressed confusion about their contributions and impacts in the CI processes. They perceived CI as embedded in their daily job, but at the operational level, they felt estranged from CI practitioners.

In concluding the literature review, no previous study was found focusing on the role of corporate information agency in the CI context. We have yet to know how such information agencies are used by CI practitioners and how CI is perceived by IPs in general. Given the increasing attention on CI among the IP community, however, it is essential to study these issues if we want to advance our knowledge about the CI realm.

4. Methodology

4.1 Research Objectives

The aim of this research is to develop a grounded understanding of the role of corporate information agencies in CI practices. To achieve this purpose, the following two objectives were set to guide the whole project: (1) to define the value of corporate information agency in the CI context; and (2) to identify measurable surrogates that may influence the use of corporate information agency in CI practices.

4.2 Research Questions

Based on the goals and objectives, three general research questions were formulated:

- (1) To what extent are CI practitioners aware of and use their corporate information agencies?
- (2) How do CI practitioners perceive the role of their corporate information agencies?
- (3) How do IPs view their role in the CI context?

The first research question attempts to determine if CI practitioners use the corporate information agencies available in their organization. If positive, to what extent are such agencies used? If negative, what would be their reasons for not using them? Are they aware of the existence of such agencies in their organization?

The second research question focuses on the CI practitioners' perceptions on the role of corporate information agencies in CI practices. For example, how much usefulness do they perceive of information agencies? What part can such agencies play in the CI process?

In contrast, the third research question collects perceptions about the same issue from the IPs' perspective. To what extent are they aware of CI services in their organization? To what extent are they involved in CI activities? How do they perceive their identity in the CI context? According to IPs, what part can corporate information agencies play in the CI process?

4.3 The Survey Method

To answer those research questions, two different survey questionnaires were designed and distributed to two groups: CI practitioners and IPs. This survey effort was administered mostly in an online environment. A few participants were communicated with by phone or in informal meetings. Some verified data and supplemental information were gathered through emails.

4.3.1 Survey Samples

The study contains two samples, one from CI practitioners and another from IPs. Served as sampling frames, the membership directories of the Strategic and Competitive Intelligence

Professionals (SCIP) and the Special Libraries Association (SLA) were cross checked in order to identify companies that have both CI unit(s) and corporate information agencies. Altogether, 174 companies/establishments were identified. These companies represent various industries. Some industries, however, such as pharmaceutical, defense, professional services, healthcare, biotechnology, and insurance, have obviously more CI practitioners and IPs than other industries. To further identify potential participants, some professional networks, such as LinkedIn.com and CI Ning, were also used. Eventually 265 CI practitioners and 373 IPs were identified and initially contacted by an email inviting participation in this study. The following groups of individuals were excluded from the final samples: (1) those whose email address generated a message “undeliverable” with system administrator error code; (2) those who replied a message stating a change of responsibilities or unemployment; and (3) those who indicated that they were not keen on responding or preferred not to participate in this survey. The final samples contain 214 CI practitioners and 358 IPs. After the initial contact and a follow-up reminder, of the 214 CI practitioners, 72 responded to the survey, a response rate of 33%; of the 358 IPs, 106 responded, a response rate of 29%. However, of the 72 responses in the CI practitioner sample, nine were excluded for data analysis, because six were incomplete and the other three respondents were found actually IPs working in a corporate library setting. The three individuals were then contacted and asked if it was possible to switch to answer the questionnaire for IPs. But none of them replied. Of the 106 respondents in the IP sample, 25 failed to complete the questionnaire and were excluded for further data processing.

4.3.2 Instrumentation and Pilot Testing

This study involved a process of developing and pilot testing two survey instruments: one for CI practitioners and another for IPs. Based on the literature, a prototype of the instruments was first built and submitted to a small group of CI practitioners and IPs, who have extensive experience in their areas, for testing and opinions. The test results revealed many problems of the prototype and prompted a radical modification of the instruments. The revised instruments were sent to another small group of pilot testers, some of whom had participated in the first round of testing. The resulting responses received from this round proved to be much better than the initial draft. Those testers have provided many constructive suggestions about the structure, wording, and question design of the instruments. Grounded on these opinions, the instruments were again revised into the current edition (see Appendix 1 and Appendix 2).

Considering that the study participants would be professionals who have busy working schedules, the instruments were intentionally designed to be as concise as possible, in order to retain the respondent’s attention. For both instruments, there are fifteen questions, eight of which focus on gathering the participant’s demographic, educational, professional, and organizational background information. In addition, for CI practitioners, the instrument primarily addresses the following categories of topics:

- Awareness of information agency
- Information agency use
- Perceived usefulness of information agency

Awareness is assumed as a factor to influence the use of information and information sources (Auster & Choo, 1993; Baldwin and Rice, 1997; Bareau, 2003; Choo, 1994; Dalkir, 2005; Savolanien, 2000). In the instrument, questions are designed to determine if the respondent is aware of (1) the information agency as an organizational unit, (2) the information services/products provided by the information agency, and (3) the existence of IPs.

Information agency use is a key construct in achieving the goal of this project. In the instrument, we directly ask the respondent if he/she has used (1) the information resources prepared by the information agency and (2) the information services/products offered by the information agency. If yes, the respondent would have an opportunity to report the frequency of using these information agency resources. If no, the respondent would have a chance to select and/or state reason(s) for not doing so. Additionally, the instrument includes sub-questions to ask if the respondent has been involved in any collaborative and communicative activities with IPs in the organization. If yes, information about such behavior's frequency and information exchange channels would be gathered.

Perceived usefulness is a construct conventionally used in information systems research, typically in the technology acceptance model (TAM). Here we borrowed that concept and adapted it to this study. In the instrument, we ask CI practitioners to rate their perceived usefulness of information agency from four aspects, to see if using the information agency would enable to improve their (1) job efficiency, (2) job quality, (3) job effectiveness, and (4) productivity.

Otherwise, for IPs, the instrument contains questions addressing the following areas:

- Awareness of CI function
- Perceived identity in the CI context
- Involvement in CI activities
- Perceived usage of information agency resources by CI practitioners

Awareness of CI function is a construct to examine the extent to which the IP is aware of the CI operation in his/her organization, such as (1) the structure of the CI operation, (2) the existence of CI unit(s), (3) the existence of CI practitioner(s), and (4) what CI practitioners do. Some of the IPs may themselves be responsible for CI charges. If this is the case, they would have opportunities to point that out in other questions.

Perceived identity is assumed to be an important indicator to the role that the IP plays in the CI context. Between the identities of IP and CI, do they perceive themselves as only one of them or both of them? In the future, would they like to see any identity change? In the instrument, the respondent would be prompted to select all identity options that apply.

Involvement in CI activities is a construct to probe the extent to which the IP is engaged in CI activities in his/her organization. It is measured in four aspects: (1) overall involvement, (2) frequency of receiving CI-related information requests, (3) frequency of proactively contacting CI practitioners, and (4) frequency of being integrated or embedded in CI project teams.

To compare with what CI practitioners report on their frequency of using information agency resources, a similar question is designed for IPs, asking them, based on their observation and working experience, to rate how often such resources are used by CI practitioners. The results are labeled as the *perceived usage of information agency resources by CI practitioners*.

The survey instruments were placed on a dedicated website and participants in different groups would be able to access to one of them through a hyperlink provided in the email invitation message. Respondents could answer the questionnaire in one session or multiple sessions before hitting the “submit” button. The questions gathered responses through text boxes, radio buttons, and check boxes. A mixture of question types is used, aiming to collect both qualitative and quantitative data. The survey data was finalized and captured after a three-month collection period.

4.3.3 Participants

This study contains complete responses from 63 CI practitioners and 81 IPs, all of whom lived in the United States. Some demographic information of these participants is presented in Table 1. In general, for the CI practitioner group (hereinafter **CI group**), the employment is almost equally distributed between men and women, but male workers (54%) are slightly more than female workers (46%). For the IP group, however, the gender distribution has disproportionately favored to female (80.2%). For both groups, the biggest numbers of respondents belong to the age brackets of 51-60, 41-50, and 31-40.

In terms of the years of CI experience, most of respondents in both groups reported more than five years (71% and 49.4%). For the CI group, the average years of CI experience are 10.45 years with a standard deviation of 6.65. For the IP group, it is salient that 27.2% of respondents stated that their work had nothing to do with CI.

The level of education reflects the respondents’ educational background. For the IP group, 84% of respondents hold a master’s degree in library and/or information science (e.g., MLIS, MSLIS, MLS, and MIS). For the CI group, 36.5% of respondents hold a master’s degree in business administration (MBA) and 17.5% hold a doctorate degree. In the category of “Other” for CI practitioners, Master of Public Administration (MPA), Bachelor of Engineering, and a series of certificates in CI, BI, and marketing were added. Likewise, in the category of “Other” for IPs, a master’s degree in law firm management and some coursework on CI and computer/information systems were supplemented.

Most of the study participants have stayed in their current company for years. When being asked how long they have been working in the current organization, for the CI group, the mean response is 7.1 years ($SD=5.3$); while for the IP group, the mean response is 10.8 years ($SD=8.1$).

TABLE 1*Demographic Information of Participants*

		<i>CI Practitioner (n=63)</i>		<i>IP (n=81)</i>	
		<i>Responses</i>	<i>Percent</i>	<i>Responses</i>	<i>Percent</i>
<i>Gender</i>					
	Female	29	46.0	65	80.2
	Male	34	54.0	16	19.8
<i>Age</i>					
	21-30	3	4.8	5	6.2
	31-40	15	23.8	20	24.7
	41-50	20	31.7	20	24.7
	51-60	21	33.3	31	38.3
	60+	2	3.2	4	4.9
	N/A	2	3.2	1	1.2
<i>Years of CI Experience*</i>					
	Not associated	-	-	22	27.2
	Less than 1 year	1	1.6	-	-
	1-2 years	3	4.8	4	4.9
	3-5 years	14	22.6	15	18.5
	More than 5 years	44	71.0	40	49.4
<i>Level of Education</i>					
	Bachelor of Arts	29	46.0	42	51.9
	Bachelor of Commerce	1	1.6	-	-
	Bachelor of Science	20	31.7	15	18.5
	Master of Arts	9	14.3	2	2.5
	Master of Business Administration	23	36.5	9	11.1
	Master of Library and Information Science**	8	12.7	68	84.0
	Master of Science	7	11.1	6	7.4
	Doctorate	11	17.5	1	1.2
	Other	9	14.3	6	7.4

* Only 62 responses gathered on this information from the CI group.

**Including variations of master of science in library and information science, and master of information studies.

To analyze professional profiles of the participants, an analytics on their self-reported job titles was developed (see Table 2). In this analytics, all collected job titles, 63 for the CI group and 81 for the IP group, were dissected and examined into three parts:

- Title
- Descriptor
- Rank

The **title** refers to the heading word(s) to designate his/her particular professional role in the organization, such as director, consultant, liaison, head, supervisor, and so forth. The **descriptor** refers to those elements that describe and limit the title's functioning sector or job scope. It appears either as a single word/phrase (e.g., "strategy," "research," "strategic planning," "business development," or "knowledge integration"), or as a combination of two or more words/phrases (e.g., "competitive and market intelligence," "research and analytics," or "knowledge and information management center"). The **rank** refers to those words that indicate the level of the title, such as "senior," "assistant," and so on. For example, in the job title of "Senior Director, Business Research and Intelligence," the word "director" is seen as the title, the word "senior" is seen as the rank, and the words "business research" and "intelligence" are seen as the descriptors. Those analyzed titles, descriptors, and ranks that have the highest frequencies in this study were presented in Table 2.

The results show that the participants in two groups share a good number of similar titles, descriptors, and ranks (colored in red in Table 2). In terms of the titles, for both groups nearly one third of participants are managers or at the manager level in their functioning sectors. In terms of the descriptors, the two groups demonstrate a couple of differences. First, for the CI group, more than half of the job titles contain the word "**intelligence**" or "**insights**;" for the IP group, the word "**information**" or "**library**" dominate, and only three job titles contain the word "intelligence" – "competitive intelligence liaison," "manager, strategic intelligence," and "senior intelligence analyst." Secondly, almost 50% of job titles in the CI group contain the descriptors of **market/marketing** (e.g., "marketing research manager," "associate market research analyst"), **strategic/strategy** (e.g., "strategic competitive intelligence consultant," "manager, strategy"), or **pricing/PTW** (e.g., PTW analyst), reflecting the business and market orientation of CI operation; while nearly 30% of job titles in the IP group contain the descriptors of "**research**" (e.g., "research librarian," "researcher") or "**knowledge**" (e.g., "knowledge manager," "technical knowledge specialist"), suggesting the knowledge and research orientation of the information agencies.

TABLE 2*Analytics of Job Titles of Study Participants*

	<i>CI Practitioner (n=63)</i>		<i>IP (n=81)</i>	
	<i>Frequencies</i>	<i>Percent</i>	<i>Frequencies</i>	<i>Percent</i>
<i>Title</i>				
Manager	19	30.2	Manager	25 30.9
Director	15	23.8	Librarian	19 23.5
Analyst	9	14.3	Specialist, Information/Knowledge	12 14.8
VP	6	9.5	Analyst	9 11.1
Specialist	3	4.7	Scientist, Information/Research	8 9.9
Strategist	2	3.2	Director/Associate Director	2 2.4
Consultant	2	3.2	Other	8 9.9
Other	7	11.1		
<i>Descriptor*</i>				
Intelligence/Insights	32	50.8	Information	33 40.7
Market/Marketing	16	25.4	Research	17 21.0
Strategic/Strategy	11	17.5	Knowledge	6 7.4
Business	10	15.9	Library	6 7.4
Research	6	9.5	Services	5 6.2
Pricing/ptw	4	6.3	Resources	4 4.9
Knowledge	2	3.2	Business	3 3.7
Planning/planner	2	3.2	Intelligence	3 3.7
<i>Rank**</i>				
Senior	8	12.7	Senior	21 25.9
Associate	3	4.7	Associate	2 2.4
Principal	2	3.2	Assistant	1 1.2
Assistant	1	1.6	Chief	1 1.2
			Lead	1 1.2

*These descriptors are not mutually exclusive.

**Only a minority of the collected job titles contain a ranking word.

TABLE 3*Function of Affiliated Departments of Participants*

<i>CI Practitioner (n=63)</i>	<i>Responses</i>	<i>Percent (%)</i>
<i>Function</i>		
Marketing or market research	27	42.9
Strategic planning and development	12	19.1
Competitive intelligence/PTW	5	7.9
Research, development and innovation	5	7.9
Business development	4	6.3
corporate affairs	2	3.2
Information/knowledge services	2	3.2
Pricing	2	3.2
Miscellaneous	4	6.3
<hr/>		
<i>IP (n=81)</i>		
<i>Function</i>		
Information/library/knowledge services	24	29.6
Research, analytics, and development	18	22.2
Corporate affairs and general services	8	9.9
Competitive and technical/scientific intelligence	7	8.6
Marketing and sales	5	6.2
Business and strategic development	4	4.9
Medical or clinical affairs	4	4.9
Legal and consulting	3	3.7
Information Technology or information systems	3	3.7
Finance	2	2.5
Miscellaneous	3	3.7

Table 3 lists the functions of those departments in which the participants work. For the CI group, nearly 43% of respondents report to a function of marketing or market research (e.g., “market insights,” “global business insights and commercial operations,” or “marketing operations and analytics”). About 20% serve for a department engaged in strategic planning and development (e.g., “global strategic insights,” “creative and strategic services”). It is worthwhile mentioning that two respondents in this group are located in a unit of information/knowledge services. However, they are not IPs, but titled as “senior market analyst” and “competitive intelligence specialist.” For the IP group, more than half of respondents (51.8%) report to either a unit of library/information/knowledge services or a research and development (R&D) department.

5. Results

5.1 Results from CI Practitioners

Awareness of Information Agency

The construct is to measure the extent to which a CI practitioner has been aware of the existence of the corporate information agency in his/her organization. In this digital age, more and more corporate information agencies have transformed their information resources from print to electronic and their services from physical to virtual (Abels and Klein, 2008). Therefore, this awareness may not necessarily refer to the perception of the physical aspects of the information agency (e.g., location, space, number of print collections, etc.). Instead, we attempted to measure the respondent's awareness of the information agency as an organizational function, the information services or products that they provide, and the existence of IPs. Table 4 presents the results.

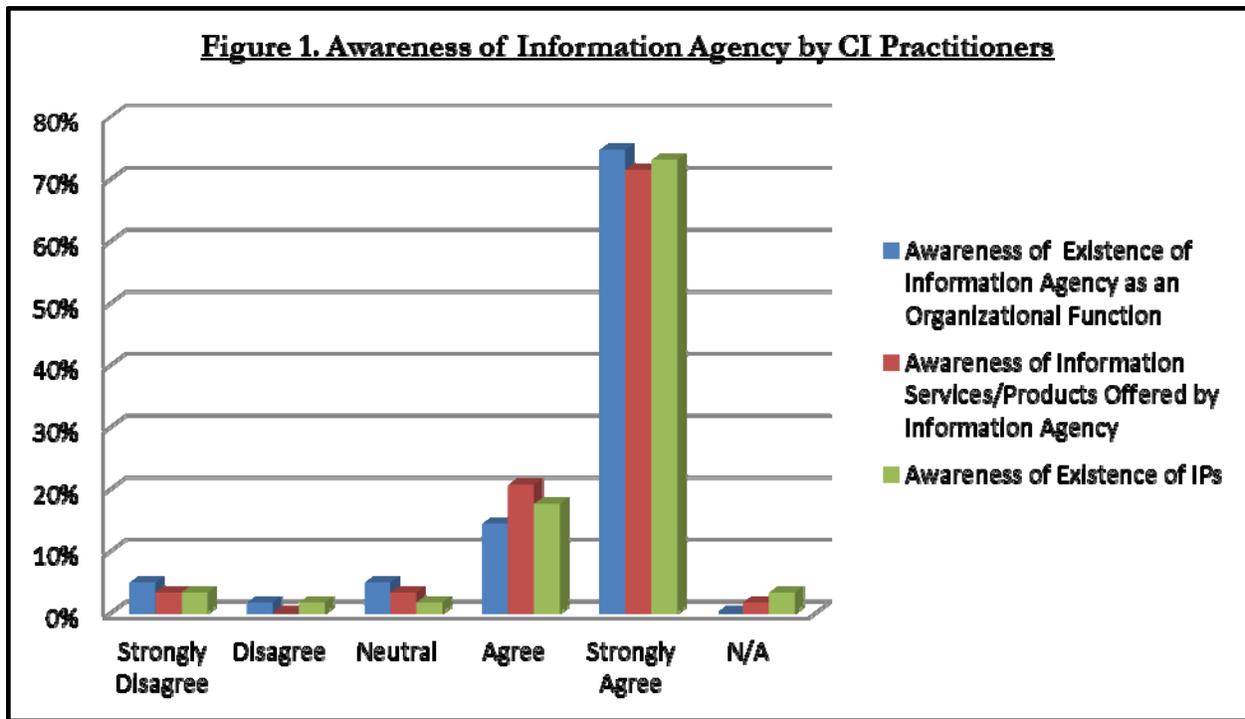
TABLE 4

Awareness of Information Agency by CI Practitioners
(*n=63*)

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>	<i>N/A</i>	<i>Mean Response</i>	<i>Standard Deviation</i>
<i>I am aware that there exists a corporate information agency in my organization</i>	4.8% (3)	1.6% (1)	4.8% (3)	14.3% (9)	74.6% (47)	0.0% (0)	4.52	1.01
<i>I am aware of the information services/products offered by the information agency</i>	3.2% (2)	0.0% (0)	3.2% (2)	20.6% (13)	71.4% (45)	1.6% (1)	4.52	1.01
<i>I know one or more information professionals who work in my organization</i>	3.2% (2)	1.6% (1)	1.6% (1)	17.5% (11)	73.0% (46)	3.2% (2)	4.46	1.19

The results show that a majority (88.9%) of the CI group have been aware of the corporate information agency in their organization, as well as the information services or products that they provide (92%). Consistently, around 90% of respondents confirmed that they know at least one IP who works in the organization. The results display a skew towards a high

awareness of corporate information agency in this sample group. Figure 1 illustrates the observation.



Information Agency Use

The notion of *use* is hard to be operationalized for measurement due to its ubiquitous nature (Case, 2007; Fisher et al, 2005; Savolainen, 2000, 2006). In this study, *information agency use* refers not only to the using of the information resources/services/products developed and provided by the information agency, but also to the using of IPs. Therefore, at the operational level this construct is represented by a combination of four variables: (1) reported use of the information resources prepared by the information agency, (2) reported use of the information services/products provided by the information agency, (3) collaboration with IPs on projects, and (4) regular contact with IPs.

The results show that 85.7% of respondents in the CI group confirmed that they have used the information resources and information service/products prepared and offered by the information agency (see Table 4). A similar rate (87.3%) of respondents reported that they keep in contact with IP(s) in the organization. Nearly 80% of respondents in this group stated that they have collaborated with IPs on projects.

TABLE 5

Reported Use of Information Agency by CI Practitioners (n=63)

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>	<i>N/A</i>	<i>Mean Response</i>	<i>Standard Deviation</i>
<i>I have used the <u>information resources</u> prepared by our information agency.</i>	1.6% (1)	4.8% (3)	4.8% (3)	20.6% (13)	65.1% (41)	3.2% (2)	4.33	1.2
<i>I have used the <u>information services/products</u> offered by our information agency.</i>	3.2% (2)	1.6% (1)	6.3% (4)	25.4% (16)	60.3% (38)	3.2% (2)	4.28	1.21
<i>I have <u>collaborated with</u> one or several information professionals within our organization on some projects.</i>	3.2% (2)	4.8% (3)	4.8% (3)	27.0% (17)	52.4% (33)	7.9% (5)	3.96	1.53
<i>I <u>keep in contact with</u> the information professionals in my organization.</i>	1.6% (1)	3.2% (2)	1.6% (1)	36.5% (23)	50.8% (32)	6.3% (4)	4.13	1.35

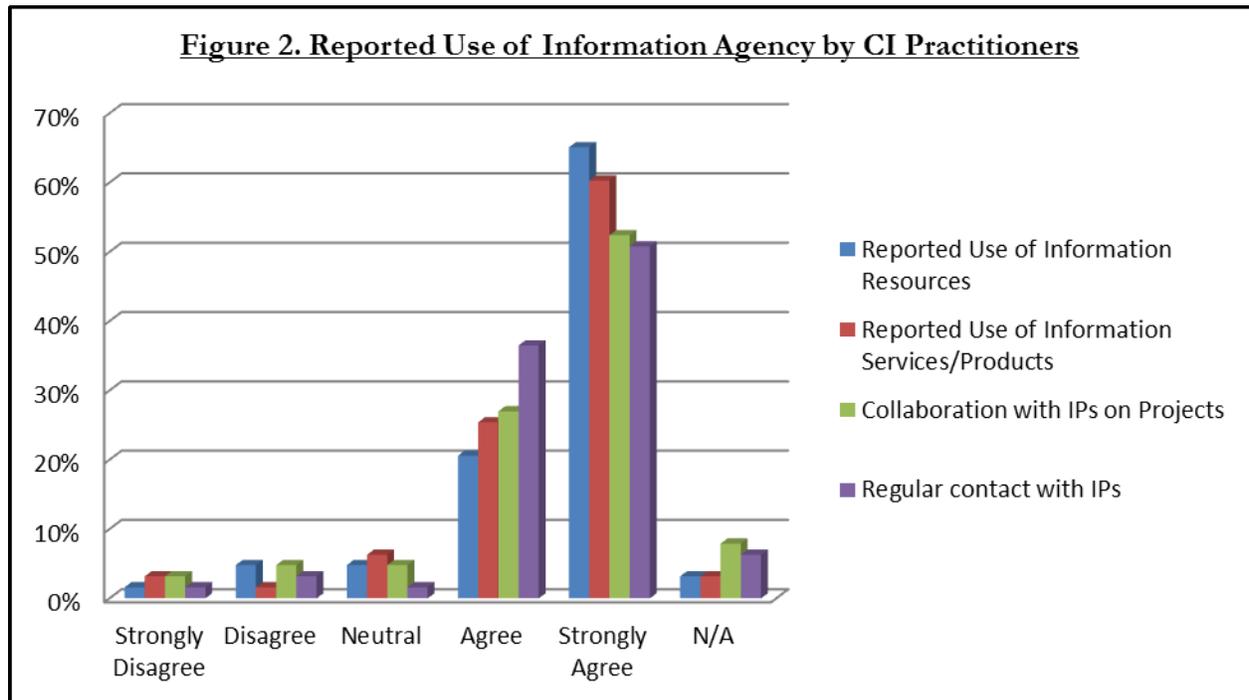


Figure 2 displays that *information agency use* has a similar skew that has been observed in the *awareness of information agency*. Such consistency suggests a type of correlation between these two constructs.

TABLE 6

Correlations between Awareness of Information Agency and Information Agency Use (Pearson's Correlation Coefficients)

<i>Information Agency Use</i>	<i>Awareness of Information Agency</i>		
	<i>Awareness of information agency as an organizational function</i>	<i>Awareness of information services/products offered by the information agency</i>	<i>Awareness of existence of IPs</i>
<i>Reported use of information resources provided by the information agency</i>	.541*	.634*	.477*
<i>Reported use of information services/products provided by the information agency</i>	.730*	.809*	.591*
<i>Collaboration with IPs</i>	.498*	.529*	.707*
<i>Regular contact with IPs</i>	.599*	.670*	.777*

*. Correlation is significant at the 0.01 level (2-tailed)

Indeed, further analysis shows that between sectors of *awareness of information agency* and *information agency use*, all the correlation coefficients are positive and statistically significant ($p \leq .01$). The correlation coefficients range from 0.477 to 0.809, with an average value of 0.63 (see Table 6). It may mean that CI practitioners' behavior in using the information agency would be positively correlated with their awareness of its existence.

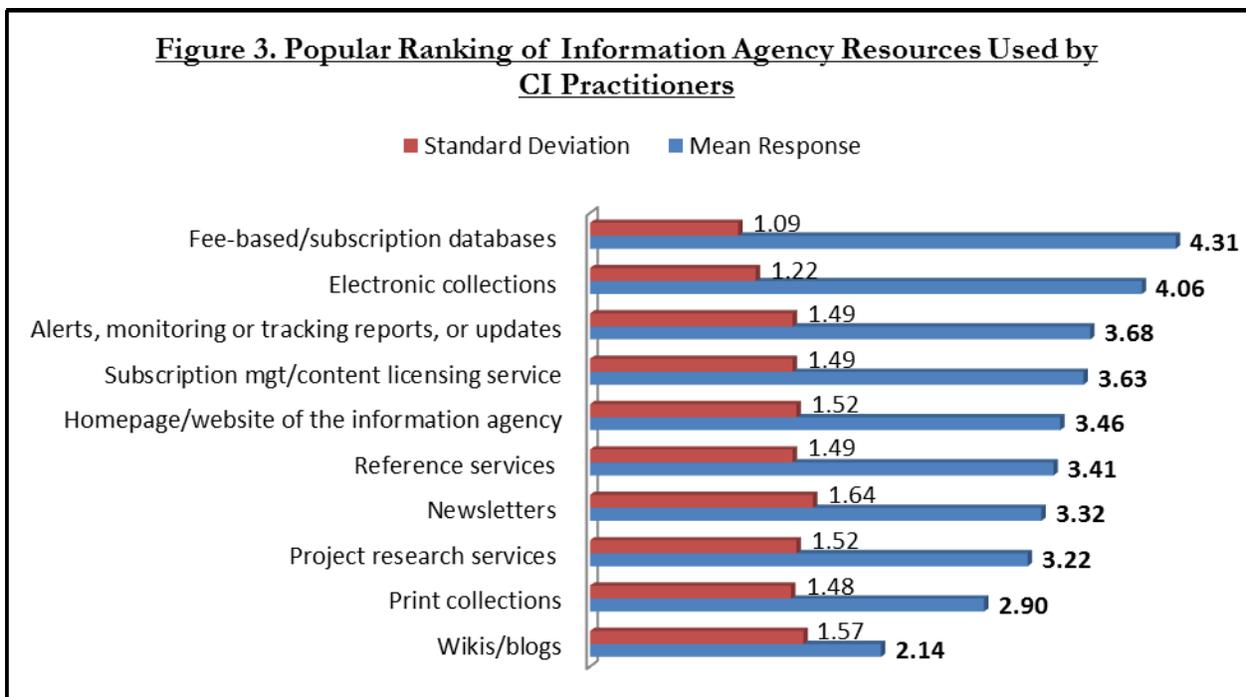
Frequency of Using Information Agency Resources

To obtain more knowledge about the extent to which the CI practitioners use the corporate information agency, they were asked to rate their frequency usage of ten information agency resources with a five-point scale presented as not at all (=1.00), rare (=2.00), somewhat (=3.00), often (=4.00), and very often (=5.00). The ten resources to be rated are: homepage/website, wikis/blogs, print collections, electronic collections, fee-based/subscription databases, newsletters, alerts/update products, reference services, project research services, and subscription management or content licensing services. Results are presented in Table 7.

TABLE 7*Frequency of CI Practitioners' Using Information Agency Resources (n=63)*

	<i>N/A</i>	<i>Not at all</i>	<i>Rare</i>	<i>Somewhat</i>	<i>Often</i>	<i>Very often</i>	<i>Mean Response</i>	<i>Standard Deviation</i>
<i>Homepage/web site of the information agency</i>	6.3% (4)	4.8% (3)	14.3% (9)	20.6% (13)	19.0% (12)	34.9% (22)	3.46	1.52
<i>Wikis/blogs developed and updated by the information agency</i>	20.6% (13)	15.9% (10)	20.6% (13)	23.8% (15)	9.5% (6)	9.5% (6)	2.14	1.57
<i>Print collections provided by the information agency</i>	4.8% (3)	15.9% (10)	19.0% (12)	22.2% (14)	20.6% (13)	17.5% (11)	2.90	1.48
<i>Electronic collections provided by the information agency</i>	1.6% (1)	3.2% (2)	6.3% (4)	15.9% (10)	22.2% (14)	50.8% (32)	4.06	1.22
<i>Fee-based/subscription databases licensed through the information agency</i>	1.6% (1)	3.2% (2)	1.6% (1)	7.9% (5)	27.0% (17)	58.7% (37)	4.31	1.09
<i>Newsletters (either print or electronic) compiled by the information agency</i>	11.1% (7)	4.8% (3)	11.1% (7)	17.5% (11)	25.4% (16)	30.2% (19)	3.32	1.64
<i>Alerts, monitoring or tracking reports, or updates maintained by the information agency</i>	6.3% (4)	3.2% (2)	11.1% (7)	14.3% (9)	25.4% (16)	39.7% (25)	3.68	1.49
<i>Reference services offered by the information agency</i>	6.3% (4)	4.8% (3)	15.9% (10)	15.9% (10)	28.6% (18)	28.6% (18)	3.41	1.49
<i>Project research services offered by the information agency</i>	6.3% (4)	7.9% (5)	19.0% (12)	15.9% (10)	25.4% (16)	25.4% (16)	3.22	1.52
<i>Subscription management or content licensing services provided by the information agency</i>	4.8% (3)	4.8% (3)	15.9% (10)	11.1% (7)	23.8% (15)	39.7% (25)	3.63	1.49

Based on the results, Figure 3 demonstrates a popular ranking of the ten information agency resources used by the CI practitioners. The resources were ranked by the frequency usage mean score. As mentioned earlier, a higher numerical score indicates a more frequently used item. As a result, fee-based/subscription databases, electronic collections, alert/update products, and subscription management or content licensing services are listed as the most frequently used items. In contrast, wikis/blogs, print collections, project research services, and newsletters are recorded as the least frequently used item. The results may mean that, on one hand, the CI practitioners frequently use the commercial databases for information collection purposes. The alert/update products compiled by the information agency are also often used by the CI group. On the other hand, the results may imply that print collections have increasingly been replaced by electronic resources. Wikis/blogs, however, have yet to be widely used. Over 20% of the respondents in this group stated that wikis/blogs are not applicable to them.

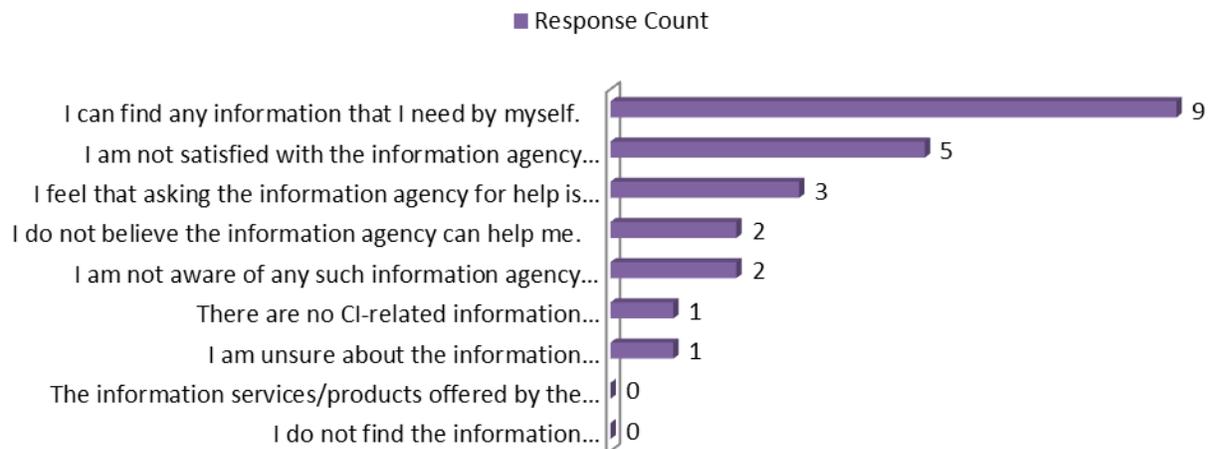


Reasons for not Using Information Agency

It should not be ignored that there are still a minority of CI practitioners who reported a low awareness and low usage of their information agency. It would be meaningful to probe why that happened. In the instrument, one question is designed for this purpose. It asked those who reported not using or rarely using the information agency to select one or more pre-defined reasons that apply or to specify their reasons in a text box. Altogether twenty-one respondents (33.3% of 63) made selection(s) or comments on this question, including three who reported that their information agency was recently been closed or downsized because of a budget cut. Table 8 presents part of the results.

TABLE 8*Reasons for not Using Information Agency (n=21)*

	<i>Response Count</i>	<i>Response Percent</i>
<i>I am not aware of any such information agency existing in my organization.</i>	2	9.5
<i>I am unsure about the information resources/ services/ products offered by the information agency.</i>	1	4.8
<i>There are no CI-related information resources/ services/ products provided by the information agency.</i>	1	4.8
<i>I do not find the information resources/ services/ products offered by the information agency applicable to my job.</i>	0	0.0
<i>I can find any information that I need by myself.</i>	9	42.9
<i>I do not believe the information agency can help me.</i>	2	9.5
<i>I feel that asking the information agency for help is too difficult or bothersome.</i>	3	14.3
<i>I am not satisfied with the information agency services.</i>	5	23.8
<i>The information services/ products offered by the information agency are fee-based.</i>	0	0.0

Figure 4. Reasons for not Using Information Agency

As illustrated in Table 8 and Figure 4, the most frequently cited reasons for no or low use of information agency is, “I can find any information that I need by myself” (42.9%). One respondent specified that:

“In most instances the content offered by the information agency at my company is science-based as a pharmaceutical company. However my needs are more business-focused. [T]hese conditions, in turn make searching and identifying resources one of my primary responsibilities. In fact, I have built my own satellite information agency in an effort to ensure I have access to the information I need to conduct my CI work.”

Similarly to the above reason, the statement of “I feel that asking the information agency for help is too difficult or bothersome” was selected by three (14.3%) low users. It implies that these CI practitioners would rather do information search or other information activities by themselves than use the information agency. One respondent commented that in his working unit, “[t]he information is built on a self-serve model. Employees are expected to leverage the information assets to meet their own business needs.”

It is salient that five (23.8%) none/low users selected the reason that “I am not satisfied with the information agency services.” One respondent specified that:

“We struggle with the quality and depth of information (understanding of issue and its nuances, ability to relate info) received from the agency and believe it's more effective to conduct the research on our own...”

Additionally, two respondents admitted that they had never been aware of the existence of the information agency.

Communicative Channels between CI practitioners and IPs

Previous studies revealed that some IPs are responsible for compiling and distributing competitive information using such formats as alerts, industry updates, tracking reports, newsletters, etc., and email was repeatedly found as the major distribution tool (Jin, 2008; Jin and Bouthillier, 2008; Marin and Poulter, 2004). Usually such information is either disseminated massively at the organizational level or sent to specific user groups via different lists managed by the IPs (Jin, 2008).

In this study, many responding CI practitioners indicated that they have known or collaborated with IPs in their organization. One question was included in the instrument to survey which tool they use more for such communication and interaction. The survey takers were asked to rate the frequency usage of the following different communicative channels: email, phone, conference call, formal face-to-face meeting, informal face-to-face meeting, and instant/text messaging. Each item would be rated on a five-point scale presented as not at all (=1.00), rare (=2.00), somewhat (=3.00), often (=4.00), and very often (=5.00).

TABLE 9*Communicative Channels between CI Practitioners and IPs*

	<i>N/A</i>	<i>Not at all</i>	<i>Rare</i>	<i>Somewhat</i>	<i>Often</i>	<i>Very often</i>	<i>Mean Response</i>	<i>Standard Deviation</i>	<i>Response Count</i>
<i>Email</i>	4.8% (3)	0.0% (0)	4.8% (3)	3.2% (2)	15.9% (10)	71.4% (45)	4.39	1.25	63
<i>Phone</i>	4.8% (3)	0.0% (0)	14.3% (9)	28.6% (18)	28.6% (18)	23.8% (15)	3.47	1.27	63
<i>Conference call</i>	4.8% (3)	4.8% (3)	15.9% (10)	30.2% (19)	22.2% (14)	19.0% (12)	3.21	1.34	61
<i>Formal face-to-face meeting</i>	4.8% (3)	6.3% (4)	15.9% (10)	38.1% (24)	23.8% (15)	9.5% (6)	3.00	1.22	62
<i>Informal face-to-face meeting</i>	4.8% (3)	7.9% (5)	15.9% (10)	22.2% (14)	27.0% (17)	19.0% (12)	3.20	1.41	61
<i>Instant/text messaging</i>	11.1% (7)	27.0% (17)	27.0% (17)	11.1% (7)	11.1% (7)	11.1% (7)	2.18	1.52	62

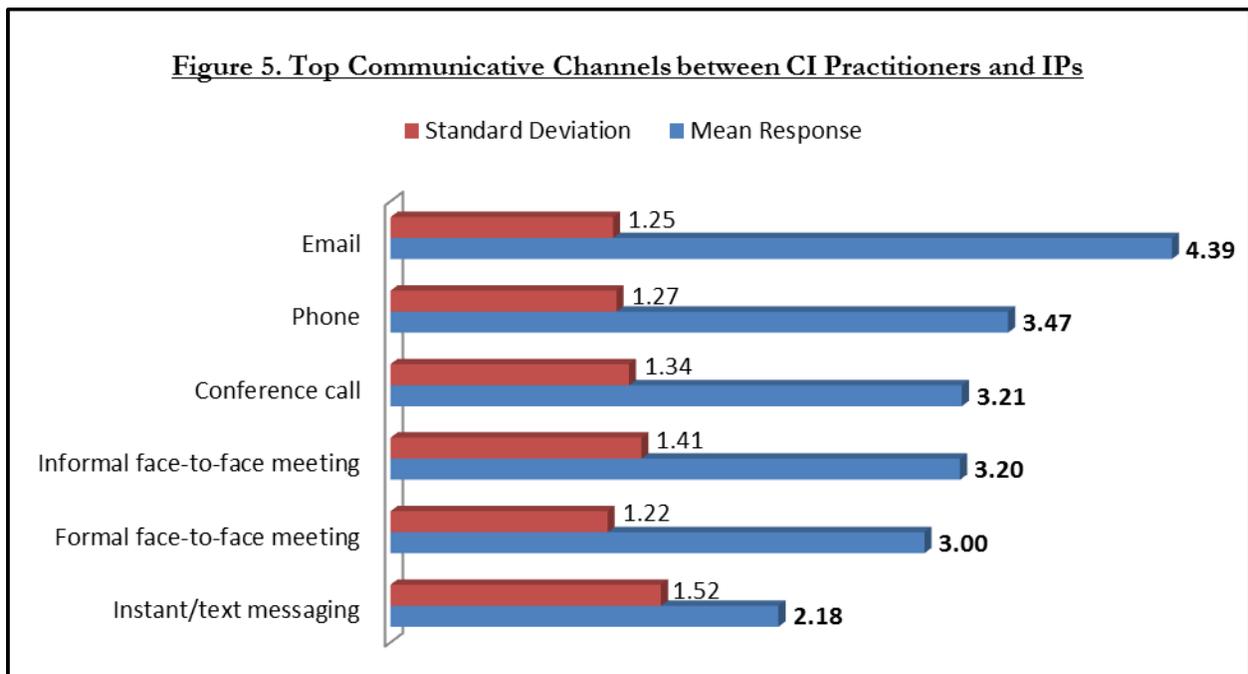
Figure 5. Top Communicative Channels between CI Practitioners and IPs

Table 9 presents the results and Figure 5 visualizes the popular list ranked by the frequency usage mean score. Consistent with what has been observed in previous studies, email is reported as the most frequently used tool for communication and interaction between CI practitioners and IPs. Phone ranks the second, followed by conference call, informal face-to-face meeting, and formal face-to-face meeting. Instant/text messaging is recorded as the least frequently used tool, over 65% of respondents rating it as not applicable, not at all, or rare.

Perceived Usefulness of Information Agency

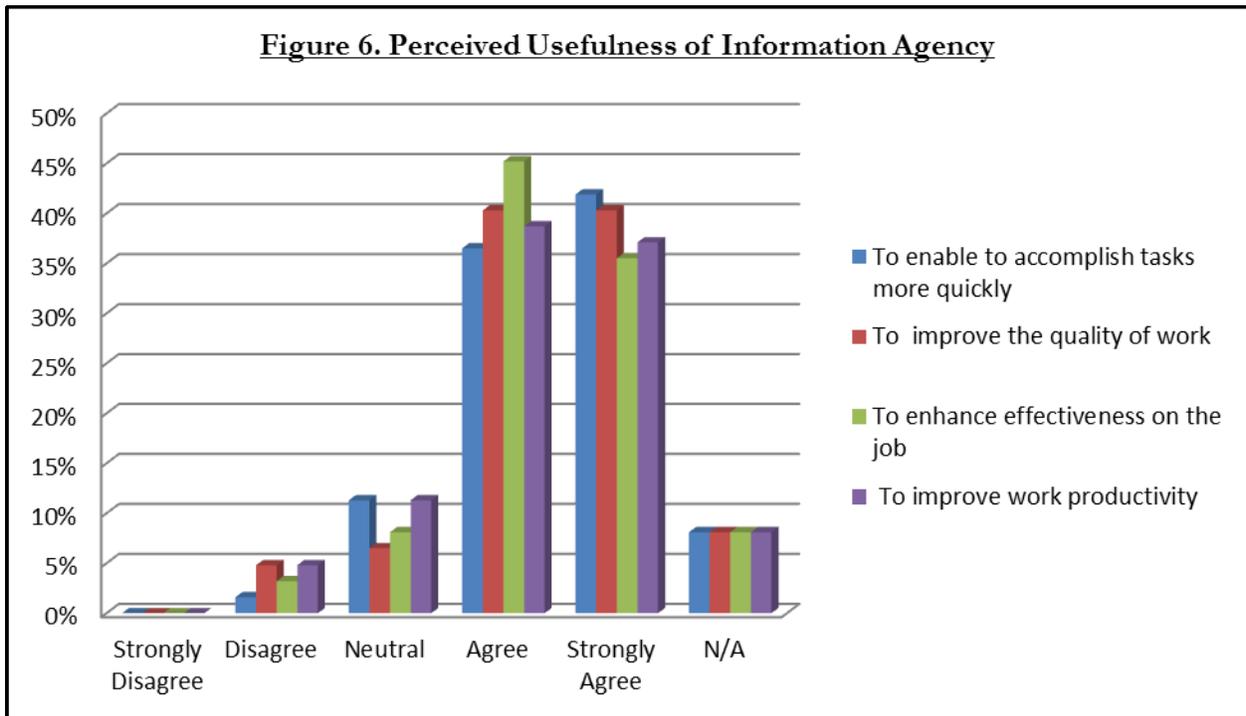
In Management of Information Systems (MIS) research, *perceived usefulness* is often seen as a key determinant to predict someone’s intentions to use certain information or computer technology (Davis et al., 1989). This construct, however, has rarely been used in other areas. In this study, it is included to test its applicability in the context of studying information agency use. The CI practitioners were asked to rate their agreement with four statements, which are four possible benefits of using a corporate information agency: (1) to accomplish one’s tasks more quickly, (2) to improve the quality of one’s work, (3) to enhance the effectiveness on one’s job, and (4) to improve one’s work productivity.

TABLE 10
Perceived Usefulness of Information Agency

	N/A	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean Response	Standard Deviation	Response Count
<i>To enable to accomplish tasks more quickly</i>	8.1% (5)	0.0% (0)	1.6% (1)	11.3% (7)	36.5% (23)	41.9% (26)	3.95	1.38	62
<i>To improve the quality of work</i>	8.1% (5)	0.0% (0)	4.8% (3)	6.5% (4)	40.3% (25)	40.3% (25)	3.92	1.41	62
<i>To enhance effectiveness on the job</i>	8.1% (5)	0.0% (0)	3.2% (2)	8.1% (5)	45.2% (28)	35.5% (22)	3.89	1.37	62
<i>To improve work productivity</i>	8.1% (5)	0.0% (0)	4.8% (3)	11.3% (7)	38.7% (24)	37.1% (23)	3.84	1.40	62

The answers obtained from this question are tabulated in Table 10. The results show that a majority of the CI group (range from 75% to 80%) have perceived these benefits. Specifically, 78.4% of the respondents thought that using the information agency would enable, or has enabled them to accomplish tasks more quickly. 80.6% of the respondents considered that such

usage behavior would improve, or have improved the quality of their work. 80.7% of the respondents stated that using the information agency would enhance, or have enhanced their job effectiveness. 75.8% of the respondents thought that using the information agency would improve, or has improved, their work productivity. The visualized results in Figure 6 suggest a similar pattern that has been observed between awareness of information agency and information agency use.



Hence, a correlation analysis was conducted. The results show that between sectors of *perceived usefulness of information agency* and *information agency use*, all the correlation coefficients are also positive and statistically significant ($p \leq .01$). The correlation coefficients range from 0.543 to 0.654, with an average value of 0.601 (see Table 11). It indicates that CI practitioners' information agency use behavior would also be positively correlated with their perceived usefulness of information agency.

TABLE 11

Correlations between Perceived Usefulness of Information Agency and Information Agency Use (Pearson's Correlation Coefficients)

<i>Information Agency Use</i>	<i>Perceived Usefulness of Information Agency</i>			
	<i>Perceived job efficiency enhancement</i>	<i>Perceived job quality improvement</i>	<i>Perceived job effectiveness enhancement</i>	<i>Perceived job productivity improvement</i>
<i>Reported use of information resources provided by the information agency</i>	.596*	.630*	.597*	.587*
<i>Reported use of information services/products provided by the information agency</i>	.583*	.587*	.647*	.571*
<i>Collaboration with IPs</i>	.566*	.590*	.641*	.563*
<i>Regular contact with IPs</i>	.609*	.602*	.654*	.594*

*. Correlation is significant at the 0.01 level (2-tailed)

Perceived Role of Information Agency in CI Context

In the instrument, one open-ended question is included to enable respondents to put any comments about the role of corporate information agencies. Out of 63 respondents in the CI group, twenty-eight made responses on this question. After filtering and data reduction, twenty of the responses were considered highly relevant to this topic. Based on the tone expressed, these 20 responses were then coded into three broad evaluative categories: positive, neutral and negative. The categorized results are presented in Table 12, where typically meaningful phrases or sentences are highlighted in bold. Additionally, each response has been parenthesized with a respondent ID to indicate the owner of the response. The respondent ID will also serve as a reference in the later text.

Synthesizing these responses, several themes have emerged. First and foremost, IPs' strength and contribution on secondary information research is well valued by the CI group. They appreciate IPs' familiarity with various information resources and proficiency at information searching (e.g., Respondent ID # 8587, 1587, 3546, 7034, 8546, 2366, and 4175). They confirm that IPs have played or can play a critical role in secondary information collection and filtering, which is an essential step in the CI cycle (Respondent ID # 1478, 8587, 1425, 2366, 7411, and 2543). Such a supportive role could significantly save CI practitioners' time and enhance their job efficiency (e.g., Respondent ID # 1587, 2366, 2657, and 2543).

Secondly, besides the supportive role in the information provision, IPs have other roles that are valued by the CI practitioners, such as the administrative role in managing subscriptions and content access, consulting, or the educational role of assisting them in interacting with different information sources (Respondent ID # 4175, 3546, and 8546).

Thirdly, despite these important roles, given the analytical nature of CI and limitations of IPs, the CI practitioners think that corporate information agencies can only play a coordinative and assisting role in the CI process (Respondent ID # 1425, 1478, 2366, 2657, 7411, 2680, 2543, 4580, 3641, and 6972).

Fourth, the information agency or IPs and the CI unit or practitioners should maintain a closer working relationship to foster collaboration and create a “win-win” outcome (Respondent ID # 8587, 7034, 8546, 8962, and 6525). Such a cooperative environment may provide a solution to solve the proximity issue, which may hinder CI practitioners from accessing and using the information agency (Respondent ID # 3179).

Fifth, an outsourcing phenomenon is noticeable (Respondent ID # 8962 and 6525). Two CI practitioners reported that in their organization, they opt not to use the corporate information agency but to hire a separate group to help them for data mining and information management. Although we have yet to know the real reasons why their corporate information agencies were not selected to undertake these responsibilities, it is once again clearly evidenced that there is indeed a demand for information support for CI practices.

Last but not least, in regard to the role that corporate information agencies can play, CI practitioners do have some critical concerns. These concerns are primarily aggregated on the following areas (Respondent ID # 1478, 1425, 2657, 7411, 2680, 3179, 4580, 3641, and 6972):

- IPs may not have sufficient knowledge on business and subject domains.
- IPs’ analytical competence may be questionable.
- Information agency resources may be hard to access.
- Visibility of information agency is low and their services and resources are not transparent enough.

These critical and constructive responses do provide us with valuable insights into the role of corporate information agencies in the CI context.

TABLE 12

CI Practitioners: Perceived Role of Information Agency in the CI Context

<p><i>Positive (+)</i></p>	<p>They're critical to the success of the organization (Respondent ID # 2341).</p> <p>I've always thought the corporate info agency and CI should be closely aligned and even under the same corporate entity. One can and should support the other. 80% to 90% of CI is from publicly available sources, and that info could be provided by the info agency (Respondent ID # 8587).</p> <p>They are extremely proficient at literature/publication searches, as one example, which saves us time and greatly contributes to efficiency and accuracy of our projects (Respondent ID # 1587).</p> <p>Their role is critical, but we do not have the luxury of having any resources available to us (Respondent ID # 3546).</p> <p>In my organization, the information professionals are currently in the same department as Competitive Intelligence, and this fosters good collaboration. However, even when we were not in the same department, we worked together closely. I could not do my job without their support (Respondent ID # 7034).</p> <p>Invaluable tool for getting information. It is me and my teams job to convert the information into intelligence (Respondent ID # 1478).</p> <p>I could not imagine doing my job at the level I am currently functioning without our corporate librarian. First, for the standard reports but secondarily for ad hoc/ special projects and requests. I am extremely fortunate to have such a resource at my disposal. When possible, I will send information of interest back to our librarian if I feel others with in the organization might benefit. I know other departments, including our CEO and other senior management, hold a similarly high opinion (Respondent ID # 8546).</p> <p>Corporate information agencies work best when they coordinate and specialize in secondary data. It also helps if they are well funded and understand business needs (Respondent ID # 1425).</p> <p>Not only does our IS staff have more readily available access to more sources than I do. They have the experience building searches from doing more of them than I do. I rely on them heavily. This allows me to do more primary research (Respondent ID # 2366).</p>
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TABLE 12	<i>continues</i>
<i>Positive (+)</i>	<p>I believe corporate information agencies are critical to CI to provide knowledgeable experts who can turn services/products around quickly and efficiently, train others in research and analysis, help drive informed decisions, and make an impact on capture strategy and revenue. I believe this is even more critical in competitive markets--the need for CI is even more important in targeting and strategy. The challenge is making sure they are tasked effectively so the value of their results is fully realized, and tailoring processes and services to customer markets that are often extremely segmented even within an organization (Respondent ID # 2657).</p>
<i>Neutral (~)</i>	<p>People are overwhelmed with information and data. The key is to distill actionable intelligence from the mound of information (Respondent ID # 7411).</p> <p>We have a group that is separate from the library that accepts requests and mines databases for information related to specific requests - I use this group fairly often, and they do an excellent job. Their services are not available to people outside of my department, so they would not be considered a corporate service (Respondent ID # 8962).</p> <p>Central information sources must have experienced and high quality staff who can find information that you can't. They should also serve a consulting role to assist in helping staff become more self-sufficient, i.e. designing RSS feeds, news queries, etc. Global site licenses to data/information are important when multiple staff need to view information (Respondent ID # 4175).</p> <p>I feel strongly that the role of corporate information agencies in CI practices is much unappreciated. Perhaps, there is need for the providers to broadcast more of their contributions to organizational competitiveness, showcase the impact of their collaboration with information users. Also, they can be more visible by walking around to their client groups to determine their needs and aspiration and proactively develop timely resources (Respondent ID # 2680).</p> <p>In my organization, we use an outside consulting company as our information agency. They are an integral part of our CI operation and carry a big chunk of responsibility in our day-to-day activities. Journal subscriptions are managed by another group in my organization and they use a casual part time professional to manage that function, CI team is responsible in managing business related databases and newsletters (Respondent ID # 6525).</p> <p>The agency develops background information to submit proposals for work, as well as helps get a project started with specific findings on companies and markets (Respondent ID # 2543).</p>

TABLE 12	<i>continues</i>
<i>Negative (-)</i>	<p>Our corporate information agency is at the level of our parent company's parent company, back on the East Coast. A long way up the hierarchy, and a long ways away geographically. They do not advertise much and people often are not aware of their services (Respondent ID # 3179).</p> <p>Many agencies do not have specific domain expertise. So they need to be taught (Respondent ID # 4580).</p> <p>They tend to be more librarians than analysts, and in our projects the latter is critical (Respondent ID # 3641).</p> <p>Librarians do not feel comfortable with dissecting and analyzing the information, writing an executive summary or preparing a full blown dossier on a company, sector, etc. They feel most comfortable providing data, which can be helpful. Some are creative in the way they conduct searches and recognize when something not asked for specifically may in fact be useful, but most stay within their comfort zone. This may be harsh, but it comes from someone who has an MLIS and has watched the profession suffer somewhat because of this (Respondent ID # 6972).</p>

5.2 Results from IPs

Awareness of CI function

Among the responding CI practitioners a high awareness was reported. Among IPs is there a similar awareness towards the CI function? With that question in mind, we asked survey takers in the IP group to answer three sets of questions. The first set of question is to probe their perceptions about the CI structure in their organization. Five pre-defined structure types are provided for the respondent to select. If none of them applies, the respondent could use provided textbox to specify his/her opinion. All eighty-one individuals in this group made responses on this question, suggesting a wide awareness of the CI function in their organization. Table 13 lists the response count on each structure type that the IPs selected.

TABLE 13

Perceived CI Structure in the Organization (n=81)

	<i>Response Count</i>	<i>Response Percent</i>
<i>The information agency is the only CI operation in my organization.</i>	4	4.9
<i>The information agency is one of multiple CI operations in my organization.</i>	26	32.1
<i>There is a centralized CI operation in my organization.</i>	12	14.8
<i>There is a distributed CI operations network in my organization.</i>	24	29.6
<i>There is no formal CI operation in my organization, but CI is informally practiced by many individuals.</i>	27	33.3
<i>Other</i>	7	8.6

As Figure 7 demonstrates, the top three perceived CI structures by IPs are: (1) there is no formal CI operation in my organization, but CI is informally practiced by many individuals; (2) the information agency is one of multiple CI operations in my organization; and (3) there is a distributed CI operations network in my organization. The total of response counts for these three options reaches 77 (out of 81). It reflects that, on one hand, most of the IPs perceived CI as a social practice, which might not be a unique process that can only be conducted by a particular group. On the other hand, it mirrors an attitude among the responding IPs towards an active

participation in the CI process. As supplemental comments, the following additional statements made by a few IPs echoed such sentiments:

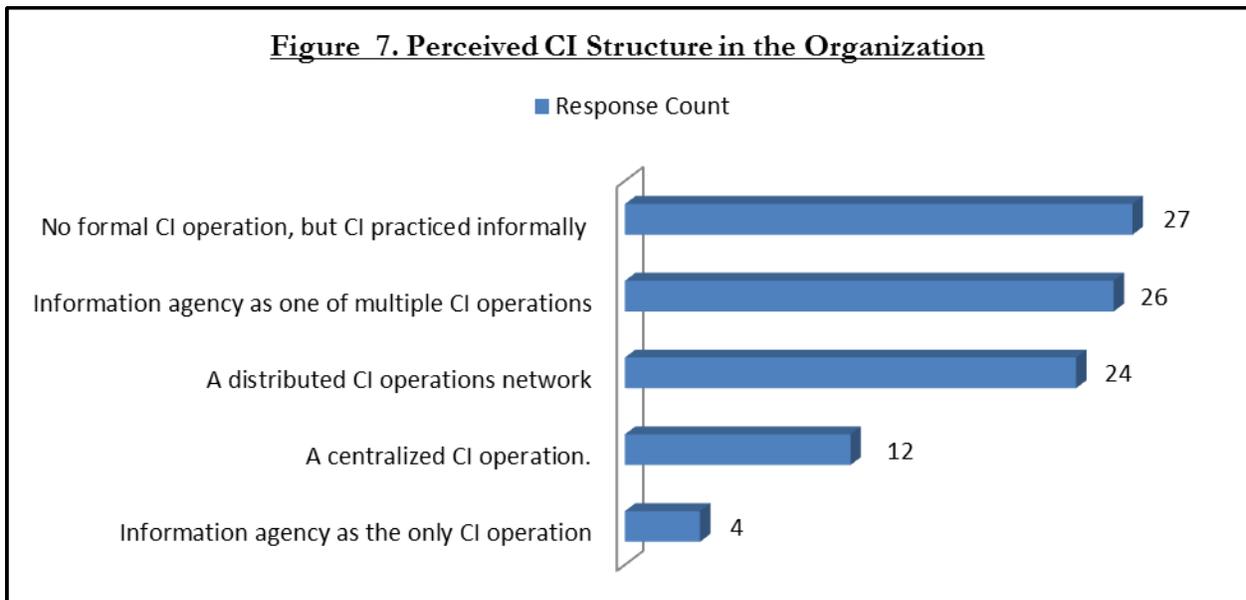
“We also have Business Intelligence and Regulatory Intelligence groups, so there is some possible overlap in coverage.”

“There is a centralized CI operation in my organization that uses the information talents of our corporate information specialists (librarians) situationally.”

“CI is practiced through the library and informally by many other individuals.”

“There is a central CI group, but the library ends up ""feeding"" that group much of the information they track, present AND get credit for. It's a frustrating relationship!”

“Our CI organization is centralized and yet the individual analysts are fully integrated into the individual business units.”



In addition, it is noted that there are four respondents who confirmed that in their organization, the information agency is the only place responsible for CI practices. In contrast, one respondent specified in the “Other” category that “There are multiple CI operations in the company, but the information agency does NOT practice CI.”

The second set of questions regarding the awareness of CI function are about if CI is part of their required job. The respondents in this group were asked to assess the degree of agreement on such a statement, using a five-point scale presented as strongly disagree (=1.00), disagree (=2.00), neutral (=3.00), agree (=4.00), and strongly agree (=5.00). Consequently, fifty

respondents (61.7%) confirmed that CI is part of their required job, while twenty-two (27.2%) respondents negated the statement and nine (11.1%) stood neutral (see Table 14).

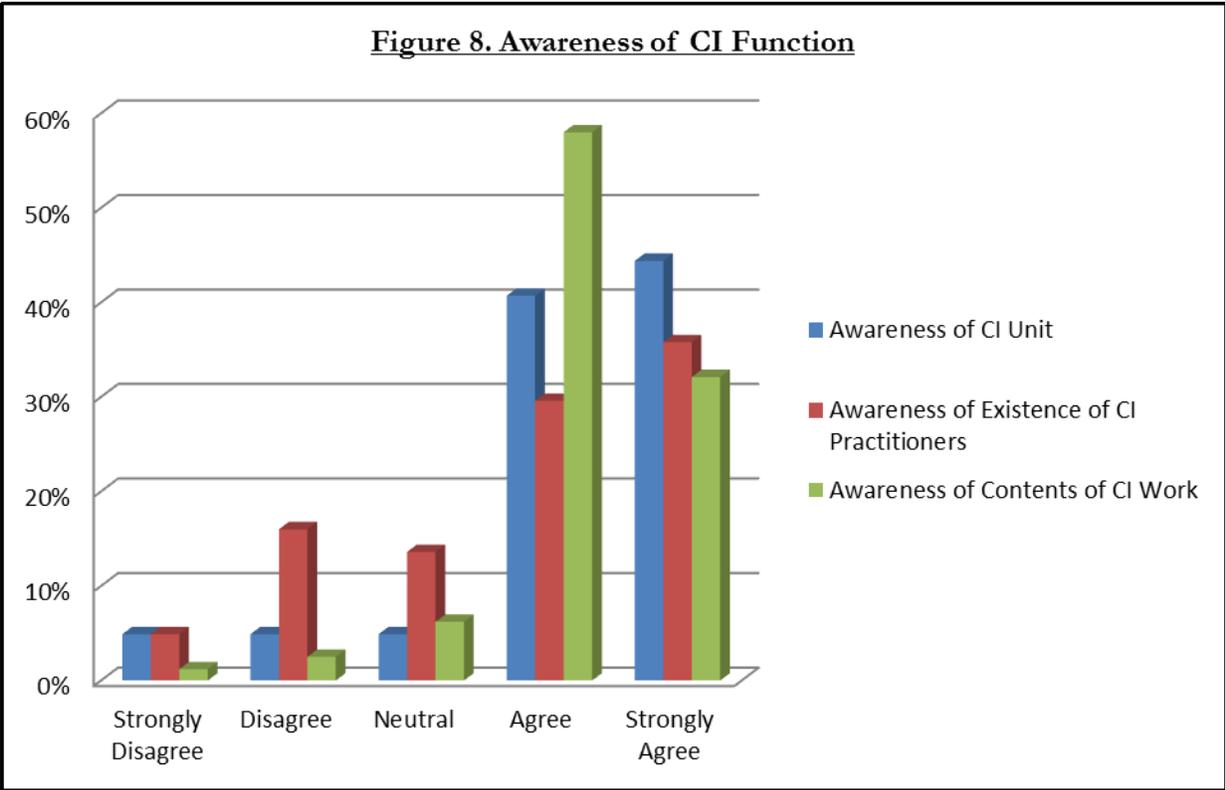
TABLE 14
Perception of CI as Part of Required Job (n=81)

	<i>Response Count</i>	<i>Response Percent</i>
<i>CI is not part of my required job.</i>	22	27.2
<i>CI could possibly be seen as part of my required job.</i>	9	11.1
<i>CI is part of my required job.</i>	50	61.7

The third set of questions is an overall assessment of the respondent’s awareness of CI function. Three variables are measured: (1) awareness of CI as an organizational function, (2) awareness of existence of CI practitioners, and (3) awareness of content of CI work. Table 15 presents all the results related to this question. Over 85% of the IP respondents confirmed their awareness of the CI function in their organization. Over 65% of IP respondents stated that they personally know the CI-related individuals, including the IPs who themselves practice CI actively in their organization. Over 90% of the IP respondents reported that they have some working knowledge about what CI practitioners do. Figure 8 illustrates the distribution.

TABLE 15
*Awareness of CI Function
(n=81)*

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>	<i>Mean Response</i>	<i>Standard Deviation</i>
<i>I am aware that there exists other CI unit(s) in my organization.</i>	4.9% (4)	4.9% (4)	4.9% (4)	40.7% (33)	44.4% (36)	4.15	1.06
<i>I personally know the CI-related individuals (e.g., CI analysts/managers) in my organization.</i>	4.9% (4)	16.0% (13)	13.6% (11)	29.6% (24)	35.8% (29)	3.75	1.24
<i>I have some working knowledge about what CI analysts/managers do.</i>	1.2% (1)	2.5% (2)	6.2% (5)	58.0% (47)	32.1% (26)	4.17	0.75



Associated with the outcomes obtained from the CI group on their awareness of information agency, these results indicate that between the IP and CI groups, there exists a high reciprocal awareness. If this reciprocal awareness can be used well, optimum benefits may be reached for both groups and the entire organization.

Perceived Identity in the CI context

Abbott (1988) in his classical work, *The System of Professions: An Essay on Division of Expert Labor*, observes that any professional practice exists in a competitive environment. The definition of the work of one profession may be challenged by other professions who define the work within their knowledge and expert domain (Hill, 1993). In such a competitive environment, professions have to compete for limited organizational resources in a collective manner. According to the Social Identity Theory (SIT), people are accustomed to classify themselves and others into various social groups (Ashforth and Mael, 1989; Tajfel and Turner, 1985; Turner, 1985). Such a mechanism helps them segment the social environment and define themselves. This process also facilitates an individual to land a sense of belonging in this social world, and eventually to establish self-esteem and identity by differentiating his/her group norms from others (Hogg and Vaughan, 2002).

CI can be an area that many organizational groups tend to claim relevance to. Given its information practice nature, it is particularly relevant to information professionals. Thus, the

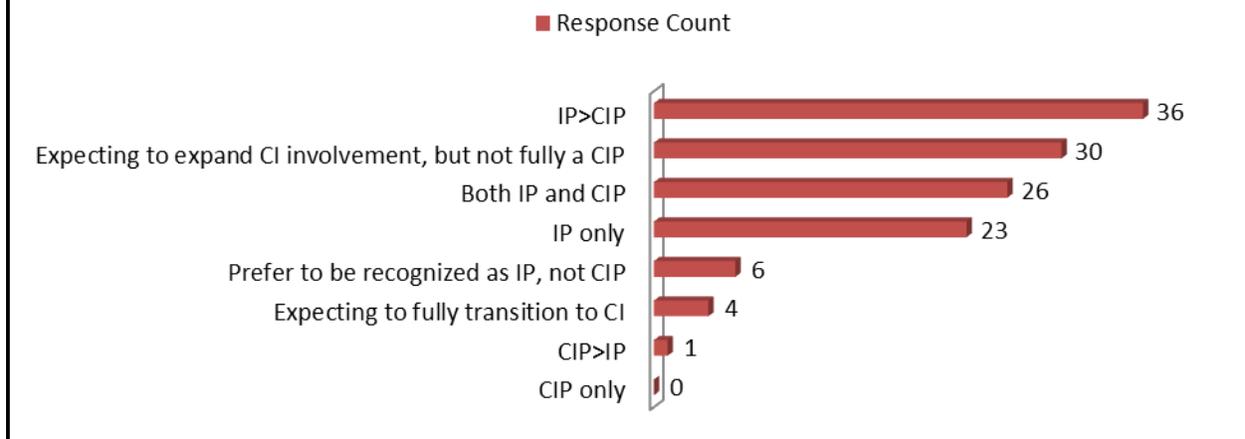
survey takers in the IP group were prompted to identify themselves by selecting among eight pre-defined options and/or specifying comments in a textbox provided. In consequence, all eighty-one respondents responded to this question. Six additional comments were recorded as supplemental justifications. The results are presented in Table 16.

TABLE 16
Perceived Identity in the CI Context (n=81)

	<i>Response Count</i>	<i>Response Percent</i>
<i>I see myself as an IP only.</i>	23	28.4
<i>I see myself as a CI professional only.</i>	0	0
<i>I see myself as both an IP and a CI professional.</i>	26	32.1
<i>I see myself as an IP more than as a CI professional.</i>	36	44.4
<i>I see myself as a CI professional more than as an IP.</i>	1	1.2
<i>In the future, I would prefer to be recognized as an IP rather than a CI professional.</i>	6	7.4
<i>In the future, I would like to expand my involvement in CI, but not fully transition into CI positions.</i>	30	37.0
<i>In the future, I would like to fully transition into CI positions.</i>	4	4.9

The results show that the following four identity options received the most responses: (1) I see myself as an IP more than as a CI professional (44.4%); (2) In the future, I would like to expand my involvement in CI, but not fully transition into CI positions (37%); (3) I see myself as both an IP and a CI professional (32.1%); and (4) I see myself as an IP only (28.4%). No respondent identified himself or herself as a CI professional only, although some of the respondents are SCIP members. But four respondents (4.9%) expressed their inclination to fully transition into CI positions. Figure 9 shows the ranking of these identity options by response count.

Figure 9. Perceived Identity of IPs in the CI Context



Several points could be inferred. First, among the respondents, there is an obvious favoritism towards IP, which represents their core value and is central to their self-definition. Meanwhile, the identity of CI professionals (CIP) has been seen as an out-group instead of in-group on some intangible dimension. Even though when they see themselves as both an IP and CIP, the latter would only serve as a secondary role, rather than the primary path for their career growth. Such conditions may prevent a majority of the respondents from being willing to transition fully to the CI territory because that would make them uncomfortable socio-psychologically. The following two quotes excerpted from the supplemental comments provide further evidence on this point.

“I have learned that it is very disadvantageous to be known for CI! I would never want to be transitioned into CI - it would be my death knell in my current organization (a Fortune 200). We do CI but never market it as such.”

“I primarily do information work that supports multiple functions, including CI. In the past our CI group was larger and we had more direct involvement in their work. In more recent years, they were re-organized and downsized. The information searching that I do is at times analytical and can be considered CI output. I am comfortable with my current level of balance between the two functions. In the past I considered transitioning fully to CI, but given current politics at my company, my current [department] is a better place to be.”

Second, when CI is seen as an out-group/in-group rivalry or conflict with IPs will naturally occur. One supplemental comment given by a respondent illustrates this point: “I'd like the Library in our organization to get formal credit for the massive role we play in the CI business of our firm. Truly, we are given the same type of work as the CI team (in fact, many attorneys contact us directly, instead of the CI team). The missing piece is that we are not included in any strategic planning, don't get face-time with the chiefs and other decision-makers, and never get credit for the support and foundation we provide.”

Third, despite such dissonance presented above, it is still clearly demonstrated that there is a good portion of IP respondents (more than 40%) indicating their hopes to expand their role in the CI activities.

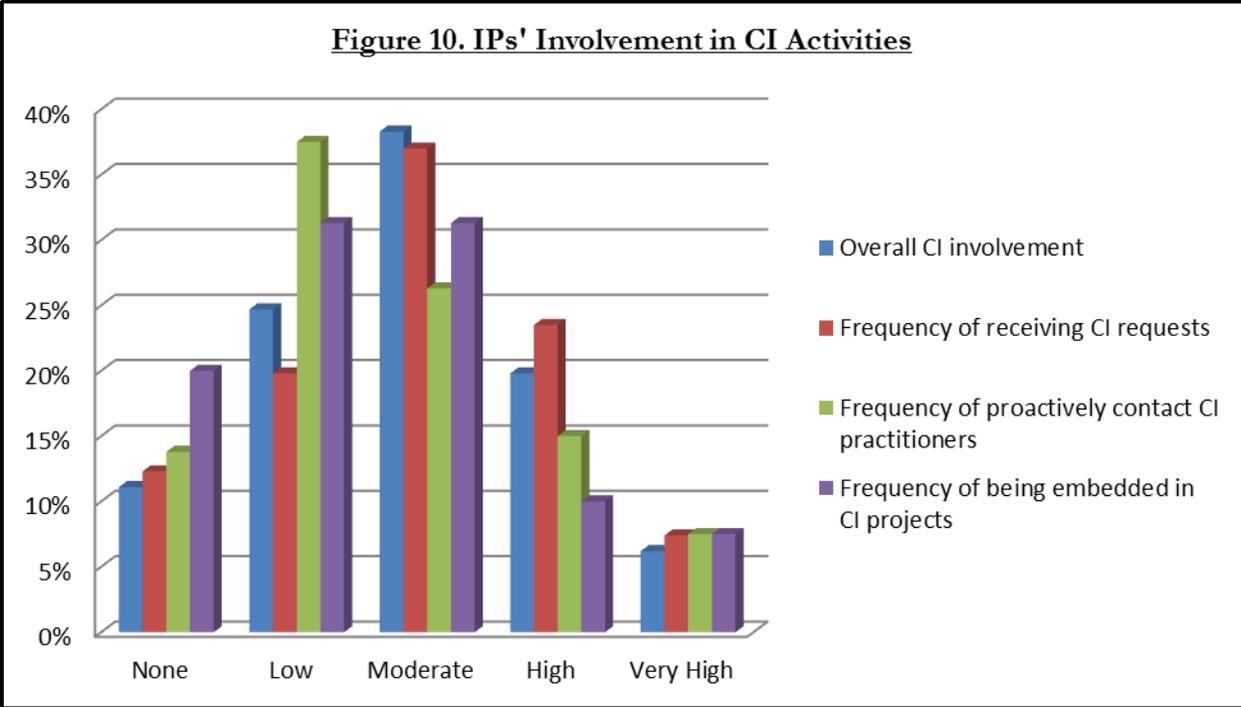
Involvement in CI Activities

The construct of CI involvement is to measure the extent to which IPs are engaged in CI processes as of today. It is made up of four variables: overall CI involvement, frequency of receiving CI requests, frequency of proactively contacting CI practitioners, and frequency of being embedded in CI projects. The respondents were asked to rate the level of involvement for each of the variables with a five-point scale presented as none (=1.00), low (=2.00), moderate (=3.00), high (=4.00), and very high (=5.00). The results are presented in Table 17 and Figure 10.

TABLE 17
Involvement in CI Activities

	<i>None</i>	<i>Low</i>	<i>Moderate</i>	<i>High</i>	<i>Very High</i>	<i>Mean Response</i>	<i>Standard Deviation</i>	<i>Response Count</i>
<i>Overall CI involvement</i>	11.1% (9)	24.7% (20)	38.3% (31)	19.8% (16)	6.2% (5)	2.85	1.06	81
<i>Frequency of receiving CI requests</i>	12.3% (10)	19.8% (16)	37.0% (30)	23.5% (19)	7.4% (6)	2.94	1.11	81
<i>Frequency of proactively contacting CI practitioners</i>	13.8% (11)	37.5% (30)	26.3% (21)	15.0% (12)	7.5% (6)	2.65	1.13	80
<i>Frequency of being embedded in CI projects</i>	20.0% (16)	31.3% (25)	31.3% (25)	10.0% (8)	7.5% (6)	2.54	1.15	80

In general, the results reveal a low and moderate involvement level among a majority of the respondents. For overall CI involvement, 63% of the respondents reported either moderate or low level involvement. For frequency of receiving CI requests, nearly 58% of the responses aggregated at the areas of low and moderate. Few IPs (12.5%) proactively get involve in CI projects. Fewer respondents (17.5%) are often embedded or integrated in CI projects.



Communicative Channels between IPs and CI Practitioners

TABLE 18
Communicative Channels between IPs and CI Practitioners

	<i>Not at all</i>	<i>Rare</i>	<i>Somewhat</i>	<i>Often</i>	<i>Very often</i>	<i>Mean Response</i>	<i>Standard Deviation</i>	<i>Response Count</i>
<i>Email</i>	9.9% (8)	4.9% (4)	22.2% (18)	32.1% (26)	30.9% (25)	3.69	1.24	81
<i>Phone</i>	12.5% (10)	32.5% (26)	28.7% (18)	18.8% (15)	7.5% (6)	2.76	1.13	80
<i>Conference call</i>	34.6% (27)	28.2% (22)	20.5% (16)	9.0% (7)	7.7% (6)	2.27	1.24	78
<i>Formal face-to-face meeting</i>	30.0% (24)	31.3% (25)	26.3% (21)	8.8% (7)	3.8% (3)	2.25	1.1	80
<i>Informal face-to-face meeting</i>	25.0% (20)	33.8% (27)	21.3% (17)	16.3% (13)	3.8% (3)	2.40	1.14	80
<i>Instant/text messaging</i>	60.0% (48)	15.0% (12)	16.3% (13)	8.8% (7)	0.0% (0)	1.74	1.03	80

To compare with the communicative tools used by CI practitioners, a similar question on this topic was also asked to IPs. The results are showed in Table 18. 63% of the respondents reported that they often or very often used email to communicate and/or interact with CI practitioners. For other communicative channels, the frequency level that was selected the most is either rare (phone, formal face-to-face meeting, and informal face-to-face meeting) or not at all (conference call and instant/text messaging).

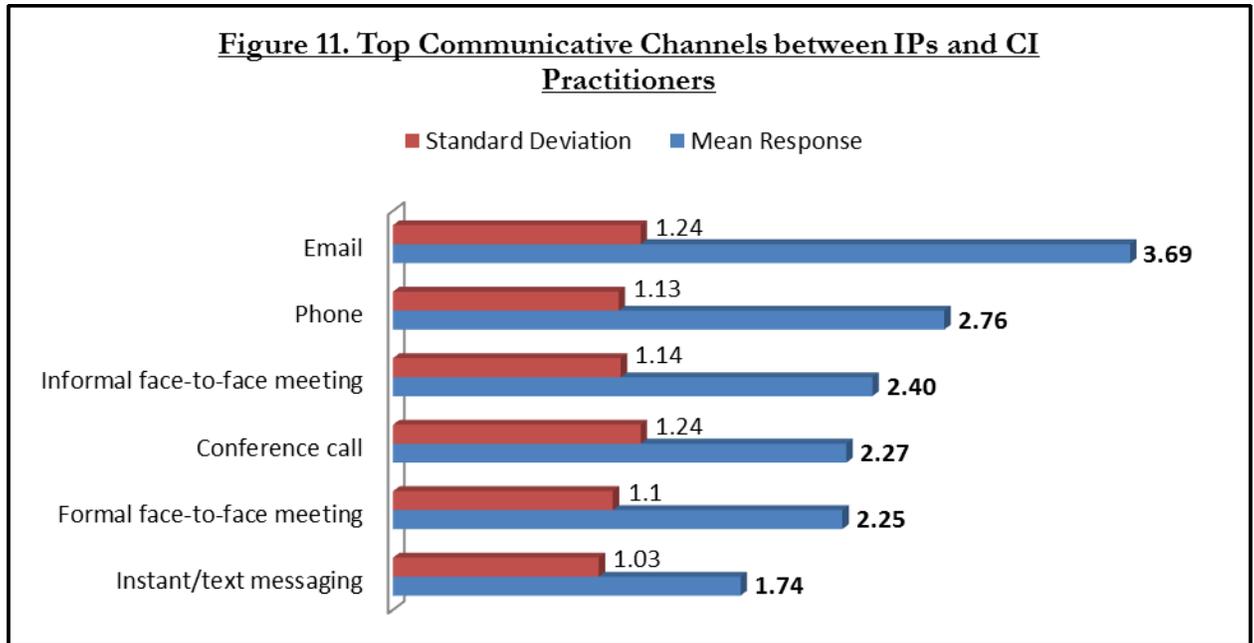


Figure 11 demonstrates the ranking of these channels by mean score. In contrast with the results obtained from the CI practitioner group (see Table 9 and Figure 5), an almost similar ranking was found, although the range of mean scores in the IP group (3.69, 1.74) is moderately lower than that recorded in the CI practitioner group (4.39, 2.18). One contributing factor leading to this lowering might be that there are around twenty IP respondents (25%) who reported that their work would be never or less associated with CI. Apart from that, the only difference between these two rankings is about the positions of conference call and informal face-to-face meeting. In the IPs’ ranking, informal face-to-face meeting is ranked the third while conference call is ranked the fourth. In the CI practitioners’ ranking, conference call is ranked the third and informal meeting is ranked the fourth.

Perceived Usage of Information Agency Resources by CI practitioners

To verify and compare with what CI practitioners reported about their frequency usage of ten information agency resources (see Table 7 and Figure 3), the IP respondents (as service providers) were prompted to answer the same question. Based on their observation and working experience, they were asked to assess how often CI practitioners use these ten resources. Table 19 presents the results.

TABLE 19

IPs: Popular Information Agency Resources Used by CI Practitioners

	<i>N/A</i>	<i>Not at all</i>	<i>Rare</i>	<i>Somewhat</i>	<i>Often</i>	<i>Very often</i>	<i>Mean Response</i>	<i>Standard Deviation</i>	<i>Response Count</i>
<i>Homepage/web site of the information agency</i>	18.5% (15)	0.0% (0)	8.6% (7)	25.9% (21)	25.9% (21)	21.0% (17)	3.04	1.70	81
<i>Wikis/blogs developed and updated by the information agency</i>	28.4% (23)	19.8% (16)	19.8% (16)	14.8% (12)	11.1% (9)	6.2% (6)	1.79	1.57	81
<i>Print collections provided by the information agency</i>	16.0% (13)	4.9% (4)	11.1% (9)	24.7% (20)	21.0% (17)	22.2% (18)	2.96	1.70	81
<i>Electronic collections provided by the information agency</i>	7.5% (6)	1.3% (1)	0.0% (0)	17.5% (14)	26.3% (21)	47.5% (38)	3.96	1.41	80
<i>Fee-based/subscription databases licensed through the information agency</i>	9.9% (8)	3.7% (3)	3.7% (3)	11.1% (9)	23.5% (19)	48.1% (39)	3.79	1.63	81
<i>Newsletters (either print or electronic) compiled by the information agency</i>	20.0% (16)	11.3% (9)	10.0% (8)	16.3% (13)	15.0% (12)	27.5% (22)	2.78	1.90	80
<i>Alerts, monitoring or tracking reports, or updates maintained by the information agency</i>	12.3% (10)	6.2% (5)	3.7% (3)	9.9% (8)	27.2% (22)	40.7% (33)	3.56	1.74	81
<i>Reference services offered by the information agency</i>	8.6% (7)	2.5% (2)	11.1% (9)	18.5% (15)	19.8% (16)	39.5% (32)	3.57	1.57	81
<i>Project research services offered by the information agency</i>	13.6% (11)	3.7% (3)	9.9% (8)	21.0% (17)	22.2% (18)	29.6% (24)	3.23	1.69	81
<i>Subscription management or content licensing services provided by the information agency</i>	18.5% (15)	9.9% (8)	9.9% (8)	17.3% (14)	14.8% (12)	29.6% (24)	2.89	1.88	81

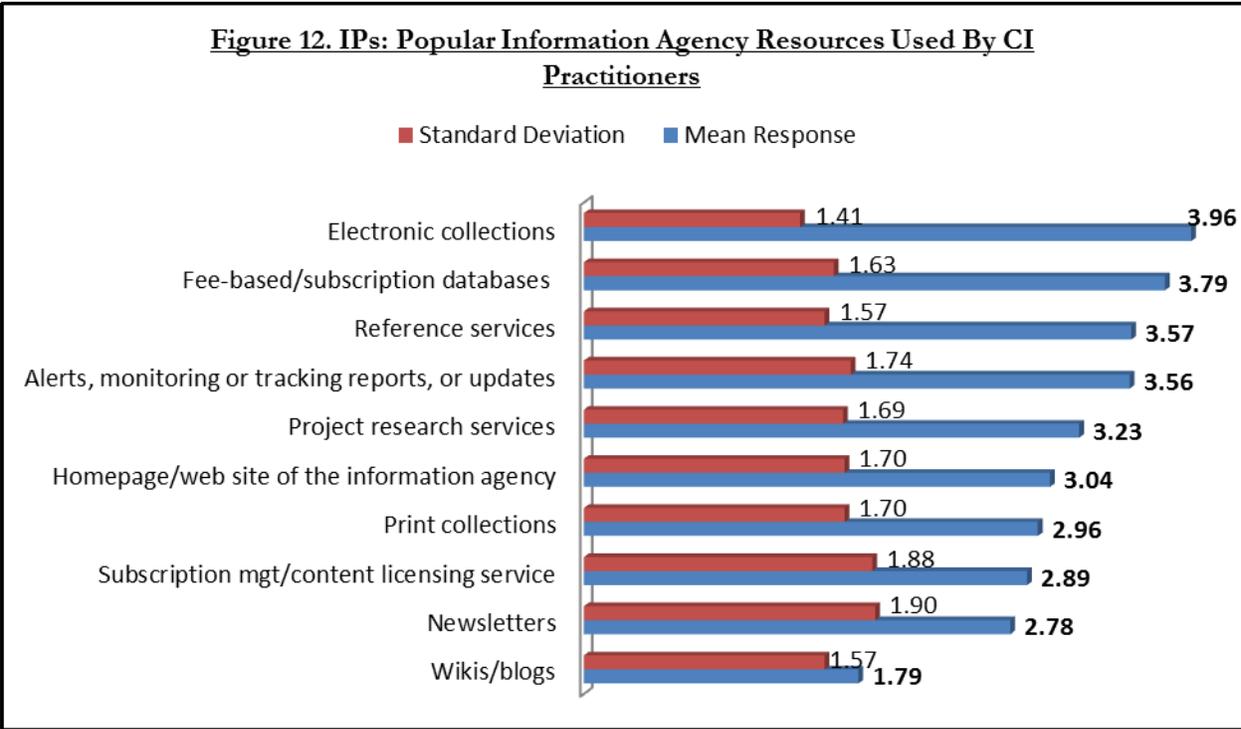


Figure 12 lists the ranking of the ten resources used by CI practitioners based on the IPs’ observation and perception. From the perspective of the responding IPs, the top four items most frequently used by CI practitioners are electronic collections, fee-based/subscription databases, reference services, and alert/update products. Among them, except reference services, the other three are similar to what CI practitioners listed. Likewise, wikis/blogs, newsletters, subscription management or content licensing services, and print collections are ranked by the IPs as the least frequently used items by CI practitioners. Among them, except subscription management or content licensing services, the other three are shared with what CI practitioners listed. Ironically, subscription management or content licensing services have been listed by CI practitioners as one of the most frequently used information agency resources.

Perceived Role of Information Agency in CI Context

Like in the instrument for CI practitioners, we asked the IPs to answer a similar open-ended question about the role of corporate information agency that they can play in the CI context. Among 81 respondents, twenty-two contributed their responses. After the process of data reduction, eighteen responses are found usable. Similarly, they are recorded into positive, neutral, and negative categories in Table 20.

The following points can be summarized from these responses. To begin with, the responding IPs confirmed their supporting role in the CI context. A number of respondents observed that their agency has been heavily used by CI practitioners to gather, filter, and

evaluate information, as well as to provide various information-related assistance services (Respondent ID # 1593, 4747, 7588, 2300, 1247, 4477, and 7569).

Secondly, there is a noticeable expansion of services provided by various corporate information agencies to support CI activities, and there exists a call for more involvement of IPs in these types of information practices (Respondent ID # 5212, 4477, 1428, 1593, 3254, and 1860). This tendency corroborates what we have found in the perceived identity that over 40% of the responding IPs would like to increase their activities related with CI (see Table 16 and Figure 9).

Thirdly, consistently with what the CI practitioners have called for, the IPs also advocate a synergy of CI and IP (Respondent ID # 8587, 1428, 4099, 2777, 3254 and 5761). One respondent even presented a perfect marriage of these two functions: “My information group interacts very closely with our CI colleagues and we are united in the same department. We share information on a daily basis. The analysts use us to gather and filter information of relevance to their CI projects, and they provide us with insight into which are the most important areas for us to focus on during our daily patent, literature and news surveillance and alerting activities” (Respondent ID # 2300).

Fourthly, considering the complimentary relationship between IP and CI, there are still two different information practices in two different functions. The target audience of their services can also differ. For example, CI services may be specially designed and tailored for the top management, while the information agency resources are prepared and provided for every corporate citizen (Respondent ID # 2934). Furthermore, as mentioned in the section of perceived identity, inter-group conflict may undermine the collaboration between the two groups (Respondent ID # 4747).

Finally, IPs also have concerns about getting increasingly involved in CI activities. One big concern is on their competencies and skills (Respondent ID # 2777, 2934 and 8346). The other concern is on the image of CI and its allegedly unstable career path (Respondent ID # 1587).

In sum, most of what the IP respondents revealed on this question is found consistent with the results obtained from the CI practitioner group. Moreover, it provides another lens to examine the role of corporate information agencies in the CI context.

TABLE 20

IPs: Perceived Role of Information Agencies in the CI Context

<p><i>Positive (+)</i></p>	<p>We provide the tools and resources for the CI professionals to use. We maintain the systems, subscriptions, and services so they can focus on information analysis, not information access (Respondent ID # 7588).</p> <p>Corporate information agencies should definitely be involved in CI practices to help show their value to the organization (Respondent ID # 5212).</p> <p>Our library group is a key component to the Competitive and Technical Intelligence organization. We work closely together to ensure that our clients receive the best possible service and intelligence (Respondent ID # 8587).</p> <p>My information group interacts very closely with our CI colleagues and we are united in the same department. We share information on a daily basis. The analysts use us to gather and filter information of relevance to their CI projects, and they provide us with insight into which are the most important areas for us to focus on during our daily patent, literature and news surveillance and alerting activities (Respondent ID # 2300).</p> <p>Our information agency (business and technical library) has recently started to expand its research services with the aim to support (i.e., not compete with) CI practices in other areas of the company (e.g., Marketing & Sales) (Respondent ID # 4477).</p> <p>Analysts within the company use us heavily as part of their business intelligence (not always competitive) and strategic planning (Respondent ID # 1247).</p> <p>Seven to eight years ago the CI organization leaned heavily on information specialists to identify, evaluate, and select premium information subscriptions, services, and resources. A new CI manager was hired who wanted his analysts to understand and use information products themselves. We are now relegated to the role of consultant and are used as a sanity check when their information gathering results are unsatisfying or when the completeness and/or accuracy of the information challenge is particularly sensitive (Respondent ID # 7569).</p>
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Table 20

continues

I am aware of an information professional who started in the engineering library at my organization, moved to the business library, then eventually **moved into a CI role**. The head of the business library, an information professional, is part of the **department which also includes the CI group** (Respondent ID # 1428).

I work with the marketing people. Although I have a large electronic footprint with emails and alerts I don't get many requests from different departments. Only having been here so long can I make the connections of these people's needs. There are separate departments for ongoing projects and our government programs which don't have very much overlap. **The overall experience could certainly be enhanced by more cooperation and communication**. Senior management seems to have a disconnect with rank and file. **It would certainly help if things were more centralized** (Respondent ID # 4099).

Knowing what the internal client is working on, and being proactive in providing them information as particular projects are in process (Respondent ID # 1593).

Neutral (~)

I think this study is relevant and timely. There is a **disconnect between the perceptions of CI and information professionals** (though **most IPs do recognize an opportunity to contribute to CI - they do not have the skills to be attractive to a formal CI process**). **This disconnect is exacerbated by senior strategic decision-makers (or the CEO in Ben Gilad's terms) simply not seeing any relationship between CI and information agencies** (Respondent ID # 2777).

Info agencies at a minimum should **be providing information support to the CI function**. Depending on balance of workload, the info function **can take on basic level tasks of CI**, or in the absence of a formal CI function, there is room for the **info agency to step in and take responsibility for it**, if the info agency staff is up to the challenge (Respondent ID # 3254).

Must work together (Respondent ID # 5761).

The Corporate Information Agencies **should be perceived as active masters of the practices**. They **should be a resource for informal and formal training**. For example profiling a web-based resource (tool) being sure to give examples of practical applications from simple to extrapolations (context - strategy) (Respondent ID # 1860).

Table 20	<p><i>continues</i></p> <p>The label of competitive intelligence segregates CI activities from library activities somewhat. To me, where CI is unique is in the analysis of non-traditional literature/information sources such as looking at job postings of competitors. Also our CI professionals are more embedded with a specific group/function, whereas the Information Analysts/Librarians are in a more central organization working with everyone equally (Respondent ID # 2934).</p> <p>I have been in the business many years, and it is my experience that my scenario - needing to minimize/downplay the ""CI"" aspects of our work - is rampant within other library services in corporate settings as well. In my 18 years, I have seen at least 5 ""CI Departments"" emerge, only to be slashed after about 12-18 months. I am always willing to help those poor ""CI"" suckers once they are on board, and my group provides them whatever help we can; but inevitably they are thrown to the dogs (Respondent ID # 1587).</p> <p><i>Negative (-)</i></p> <p>I have gone to conferences in the past to conduct gather CI in my organization. I don't know because the organization has grown and the CI function is now in a business function that prefers individuals who were analysts and have MBAs (Respondent ID # 8346).</p> <p>Our formal CI professionals rarely provide credit to we information professional for the provision of any information they use in their formal analysis. I have had experience providing extensive information to some CI people who somewhat re-format the information and then summarize the content, and they never include credit to our department for providing the majority of the information in their final report. Our CI groups tend to service high level executives, and we provide them with most of the information they use, but they get the recognition (Respondent ID # 4747).</p>
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6. Conclusion and Recommendations

Using a survey method, this study developed a baseline understanding about the role of corporate information agency in CI practices. In light of the research questions, the key findings gleaned from this project are presented below.

Key Findings

- Only a small percentage of the sampled CI practitioner respondents had limited awareness (10%) and use (15%) of the corporate information agency available in their organization. Rather, 88.9% of the responding CI practitioners exhibited a high or moderate awareness of the existence of the corporate information agency; 85.7% of the responding CI practitioners indicated that they have used the information resources or services or products offered by the information agency. Fee-based/subscription databases and electronic collections are found to be the most frequently used information agency resources by CI practitioners.
- The majority of responding CI practitioners (78.9%) perceived that using the corporate information agency would benefit his/her job.
- Information agency use is highly correlated with the awareness and perceived usefulness of the information agency. High awareness or high perceived usefulness may be associated with high use of the information agency.
- Most CI practitioner respondents recognize the supporting role that corporate information agency and IPs play in the CI process. They particularly value IPs' contributions to searching for, collecting, filtering, and managing open-source information. Examples show that when CI and IP work closely, synergistic effects can be achieved. However, CI practitioners doubt IPs' business acuteness, subject knowledge, and analytical skills.
- The majority of the responding IPs (62%) affirmed that CI is part of her/his required job. Another majority of the responding IPs (85%) presented a high or moderate awareness of the existence of the CI function in her/his organization. Most of the respondents in this group perceive IP as their central identity and core value. They appear to be comfortable with the auxiliary role that they play in the CI process, but 40% of the responding IPs expecting to expand their involvement in CI.

Recommendations

Departure from these major findings and the results, the following implications and recommendations can be arrived at if corporate information agency and IPs want to play a bigger role in the CI process:

- Strengthening the core competencies as an IP: while potentially more and more CI practitioners claim that they can find any information they need by themselves, IPs have to hone, enhance and expand their skillsets in information management and information

technology in order to protect and maintain their core advantage, which is the source of the perceived usefulness of corporate information agency.

- Updating the *Competencies for Info Pros* and revising or adding items to reflect new requirements on information-related jobs, for example, information analysis competencies: to adapt changes in this digital age, the competencies list should be reviewed and updated, and then coordinating with educational and training institutions to include such updates in a timely manner.
- Increasing awareness through effective marketing: now that awareness is associated with use, IPs must “broadcast more of their contributions to organizational competitiveness, showcase the impact of their collaboration with information users, [and increase visibilities] by walking around to their client groups to determine their needs and aspiration and proactively develop timely resources” (Respondent ID # 2680).
- Facilitating the synergy of CI and IP: both groups should be encouraged to work together often and foster a collaborative environment, which will highly possibly optimize the CI process and attain a win-win cooperation and mutual growth.

Limitations of This Study

There are several limitations for this study. First of all, the sample size is small and the response rates were a bit low. Secondly, although the sample was across all industries, it turned out that the respondents from pharmaceutical and healthcare industries are obviously more than the respondents from other industries. Thirdly, non-response bias may be a factor to consider when examining the survey results. In other words, the results may only represent the views of the respondents, and it is possible that those who did not respond to the survey have significant different opinions and more than who responded to the survey. However, every effort has been made to mitigate the limitations. It is suggested that the findings of this study should be viewed with caution.

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Appendix 1

Survey Instrument for Competitive Intelligence Practitioners

Appendix 2

Survey Instrument for Information Professionals