THE INFORMING NEEDS OF PROCUREMENT OFFICERS IN ISRAEL

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ABSTRACT

Aim/Purpose	To develop and introduce a questionnaire that investigates the informing needs, information-seeking behavior, and supplier selection of procurement officers in Israel. The questionnaire's internal consistency reliability is given. Additionally, we describe the demographic description of the procurement officers in Israel.
Background	Procurement science is an important field that affects firms' profits in the private sector and is significant to growth, innovation, sustainability, and welfare in the public sector. There is little research about the informing needs of procurement officers in general and particularly in Israel.
Methodology	A quantitative questionnaire that is sent to all the procurement officers in Israel's purchasing and logistics managers association.
Contribution	The questionnaire that is developed in this paper may be used by other researchers and practitioners to evaluate the informing needs of procurement officers.
Findings	The typical procurement officer is male, with a bachelor degree and is digitally proficient.
Recommendations for Practitioners	The procuring side can use the questionnaire to develop better tools for obtaining information efficiently. The supplying side can use this knowledge to improve its exposure to potential customers and address its customer's needs better.
Recommendation for Researchers	The questionnaire can address theoretical questions such as how digital literacy affects the procurement process and provide empirical findings about active research areas such as supplier selection and information-seeking behavior.
Impact on Society	Improvement in the informing-related issues of the procurement process has the potential to reduce costs, drive growth, and discourage corruption.

Future Research	Future research will examine the relationship between the various variables and demographic features to understand why specific informing needs and information-seeking behaviors arise.
Keywords	procurement, informing needs, e-procurement, Israel

INTRODUCTION

The science of procurement is one of the most important fields of operation to both public and private organizations. For example, public procurement in the OECD countries is between 12 percent and 29 percent of government expenditures (OECD, 2017). Moreover, with the rapid progress of technological tools, procurement has been evolving rapidly and requires advanced sets of skills, and, as a result, the effect of procurement on the viability of the organization is ever more profound (Picoto, Bélanger, & Palma-dos-Reis, 2014). The fact that state-of-the-art procurement tools require advanced technological sophistication affects the likelihood of their adoption. In addition, this implies that the use of these tools and the needs of the users of these tools depend on the organization's know-how and proficiency of such tools (Raymond, Croteau, & Bergeron, 2012).

In this paper, we present a questionnaire that is used in a largescale research project about the informing needs and internet usage of procurement officers in Israel (Zarruk, 2016). There are approximately 1600 members in the Israeli Purchasing & Logistics Managers Association in Israel. The questionnaire was sent to a random subset of four hundred procurement officers with 312 questionnaires completed, making it the most comprehensive research about the informing needs of procurement officers in Israel.

Procurement and the needs of the procurement officers are tied with the economy in which they operate. In addition, the country's digital infrastructure and the digital skills of the officers influence their informing needs and usage. Therefore, this research and its results must be understood in the context of Israel's economy and communications infrastructure. Culturally and economically speaking, Israel is considered a developed western country and a member of the OECD since 2010. According to the World Bank's data, in 2015, Israel's GDP was 300 billion current US dollars, and with a population of less than 8.4 million, its GDP per-capita in 2015 was 35,700 current US dollars, placing it within the top 30 countries of the world (World Bank, 2017). Technologically speaking, Israel is very advanced. The CIA World Factbook assesses its telephone system as the "most highly developed in the Middle East". The domestic telephone system is a "good system of coaxial cable and microwave radio relay; all systems are digital; competition among both fixed-line and mobile cellular providers results in good coverage countrywide". The number of landlines and cellular lines per 100 inhabitants as of July 2015 was 131 and 42, respectively. The number of internet users as of July 2015 was estimated at 79%, placing it 58th in the world (CIA, 2017).

The questionnaire covers a number of fields that relate to a number of research questions as follows:

- What are the topics and issues that procurement officers search? What are the information channels that the officers use to search for information? How frequently do they use each of these information channels?
- What are the factors/reasons affecting their decisions to use the internet for supplier-related issues?
- What are the criteria that they use to evaluate and select suppliers? Are they able to obtain information about the suppliers on the internet?
- How do they use the internet to obtain information? Do they find it difficult to use the internet to obtain information? What languages do they use? Are they assisted by colleagues or friends? What technological tools, application and devices do they use?
- How do they assess the quality of the information obtained on the internet? What criteria do they use to assess the information's quality and accuracy? Are they satisfied with the quality/accuracy of the information obtained from the internet?

- Is the information obtained from the internet about suppliers beneficial? How much information do they obtain from each channel of information and how useful it is?

In addition, using the demographic characteristics of the participants we will be able to answer questions such as:

- Is there a difference between the informing needs of procurement officers in the public sector and the private sector?
- How does the technological literacy and/or academic education of officers influence these informing needs?

Currently, there is no large-scale research about the informing needs of procurement officers in Israel, and, therefore, the immediate contribution of this paper and the follow-up research is to address the lacuna. The paper's contribution, however, goes beyond its geographic borders. The questionnaire allows for an analysis distinguishing between public and private procurement and how the officers' demographic features affect their needs. These results can teach us about informing needs in other countries and societies.

The answers to these questions are useful for all those who are related to the field of procurement. First, organizations who are in the buying side of the procurement process must understand the needs of their procurement departments so that they can facilitate their in-house procuring operations. Second, suppliers who understand the needs of their buyers should be wise enough to accommodate those needs in order to improve their exposure to potential buyers and to meet their criteria. Third, policy makers should have a better understanding of how the many aspects of informing affect the procurement process, as this is one of the major drives of growth, innovation, welfare and (unfortunately) corruption in the economy.

The questionnaire is an informing system whose main clients are the procurement officers (see Gill and Bhattacherjee, 2007). Following Gill's (2008) structural complexity framework, one may use this questionnaire to investigate whether it's structural complexity decreases with the procurement officers' level of expertise (i.e., their tenure) and whether this also affects their informing needs.

LITERATURE REVIEW

Procurement has been investigated in many contexts by researchers. In the following review, we focus our attention to the area of e-procurement, which is now the most common ways procurement is conducted in medium and large enterprises.

In its most simple definition, e-procurement is any technology solution that facilitates private and public procurement using the internet (Presutti, 2003). Effective implementation of e-procurement creates added value to the supply chain and improves its performance (Persutti, 2003; Puschmann & Alt, 2005). Reviews of this field are in Schoenherr and Tummala (2007) and Maloni, Hiatt, and Astrachan (2017).

Many empirical papers about e-procurement focus on a single country (e.g., Auriol, Straub, & Flochel, 2016; Costa, Arantes, & Taveres, 2013; Svidronova & Mikus, 2015; Uyarra, Edler, Gee, Georghiou, & Yeow, 2014) or a relatively homogenous region (e.g., Amann, Roehrich, Eßig, & Harland, 2014; Bof & Casella, 2015; Harper, Ramirez, & Ayala, 2016). This relative homogeneity is important since the informing needs of procurement officers from societies with different levels of digital literacy will be starkly different (Huang, Tran, Nguyen, & Nazir, 2016). We may use our research to examine this by comparing the informing needs of officers with different levels of academic background. Another approach to examine this is to see if and how informing needs change with the officers' age. There is empirical evidence that age is negatively correlated with digital literacy (Eshet-Alkalai & Amichai-Hamburger, 2004; Eshet-Alkalai & Chajut, 2009). Thus, different age groups can indicate whether digital literacy affects the informing needs.

Many of the aforementioned papers discuss procurement in the public sector, namely, public procurement. This definition includes state and local governmental offices and agencies as well as public funded nonprofits such as public universities and colleges. Public procurement is a significant economic factor, which, for example, accounted to 10% of the GDP in the USA and 16% of the GDP in the European Union (Cernat & Kutlina-Dimitrova, 2015). Researchers describe many roles of public procurement. These include the role of inducing innovation, development and economic growth (e.g., Edler & Georghiou, 2007; Preuss, 2007; Uyarra et al., 2014), achieving environmental goals (e.g., Amann et al., 2014; Bof & Casella, 2015), and the reduction of public corruption (e.g., Neupane, Soar, & Vaidya, 2014).

It follows, therefore, that while private procurement focuses on the added-value to the supply chain (e.g., Puschmann & Alt, 2005), public procurements roles support non-monetary goals along with monetary goals. Public procurement also differs from private procurement in that the former is bound to many regulations and screening. The constant public demand to control spending and fight corruption results in rigid rules that the procurement officers must follow. Moreover, as can be learnt from Balaeva and Yakovlev (2015), these strict regulations also translate to significant costs.

In certain countries, all public procurement is done under the exact same rules and regulations. See, for example, Páez (2010), who describes public procurement in Ecuador and its effect on the private procurement. In Israel, however, there is a difference, between government procurement and other public procurement. Government offices in the state level are bound to the same processes and controls, whereas local authorities, public nonprofit, and other public institutions may have different procuring systems and processes.

The main objective of this research is to gauge the informing needs of procurement officers. One of the first papers to discuss informing issues of procurement officers is Sheth (1973) who develops a model for industrial buyer behavior. Sheth refers to these officers as "purchasing agents" and claims that they are exposed to vast and disproportional amounts of trade information sources.

Busse, Meinlschmidt, and Foerstl (2016) investigate the informing needs of supply chain managers focusing on procurement and sustainability. Similarly, Bouhnik, Giat, and Zarook (2016) describe the information-seeking behavior of university procurement officers in Israel. Their participants belong to public entities whose behavior may differ from procurement officers of private corporations.

Spekman (1988) identifies four categories of information sources: personal and commercial; personal and noncommercial; commercial but non-personal; non-personal and noncommercial. In the past two decades these information sources are mostly internet-based (e.g., Muffatto & Payaro, 2004). These information sources may be categorized as formal or informal. Formal sources are investigated in Bouhnik and Giat (2015) and informal sources are the focus of Jaakkola, Aarikka-Stenroos, and Kimmel (2014). Indeed, Sanderson, Lonsdale, Mannion, and Matharu (2015) claim that both types of sources are needed, especially in risky environments. Following this area of research we examine the use of formal, informal, and external (i.e., out of state) sources by procurement officers.

Anderson, Chu, and Weitz (1987) describe different levels of informing needs for different stages of the procurement officers. When procuring a new product the need for information is highest, followed by a modified rebuy situation, and a minimal level of information is needed for a straight rebuy situation. Other researchers investigate the different characteristics and informing needs of procurement officers in different industries or companies (e.g., Muffatto & Payaro, 2004). In this research, however, we do not distinguish between the procurement stage or the industry in which the procurement officers are operating.

Supplier selection is one of the most investigated areas in the field of procurement. This field dates back to Dickson (1966) who finds 23 criteria by which procurement officers assess and select suppliers. Dickson reports that the four top-ranking criteria are 'quality', 'delivery', 'performance-history' and 'warranty & claims policies'. Sheth (1973) finds that 'satisfaction from previous purchases is also

highly important to procurement officers. Weber, Current, and Benton (1991) report a rise in the importance of 'repair services and geographic locations'. Recently, Bouhnik et al. (2016) find that the five most important criteria for public procurement officers are 'quality', 'price', 'performance history', 'delivery' and 'technical ability'.

There are scores of supplier selection models, such as elimination models (e.g., Crow, Olshavsky, & Summers, 1980), analytic hierarchy process models (e.g., Atkinson, Bayazit, & Karpak, 2015; Saaty, 1980), and data envelopment analysis models (e.g., Saen & Gershon, 2010). The common feature of all these models is that it is initially required to understand the relative importance of the different criteria for supplier assessment. We therefore devote a number of questions to the understanding the criteria used by the procurement officers and their informing needs and information seeking behavior with respect to supplier selection and assessment.

RESEARCH PARTICIPANTS

This research is based on Zarruk (2016). The participants of this study are procurement officers in Israel. There are approximately 1600 members of the Israeli Purchasing & Logistics Managers Association. A questionnaire was sent to a random sample of 400 procurement officers. 312 of the 400 (78%) completed all the questionnaires, and they comprise the participants of this study. Membership in the association requires providing the workplace's confirmation that the applicant is actively involved in procurement, and, therefore, we assume that all those who responded to the questionnaire are engaged in procurement. The participants' demographic characteristics are given in Tables 1 and 2. Table 1 contains textual variables: gender; language, level of education, sector, procurement activity, and procurement budget. Table 2 contains the numerical demographic variables.

Table 1. Demographics of the study's participants – textual variables

Item	Value	N(%)	Item	Value	N(%)	Item	Value	N(%)
Gender	Men	268 (86%)	Education	High school	34 (11%)	Procurement activity	Local	223 (72%)
	Women	44 (14%)		Professional certificate	20 (6%)		Overseas	14 (5%)
Language	Hebrew	246 (79%)		B.A.	212 (68%)		Local & overseas	75 (24%)
	English	49 (16%)		M.A. or higher	46 (15%)	Procurement range	< 0.5 mil. ILS	53 (17%)
	Russian	1 (0%)	Sector	Private	270 (87%)		0.5 – 1 mil. ILS	33 (11%)
	French	12 (4%)		Public	35 (11%)		1 – 5 mil. ILS	109 (35%)
	Arabic	1 (0%)		Government	7 (2%)		5 – 10 mil. ILS	60 (19%)
	Spanish	3 (1%)					> 10 mil. ILS	57 (18%)

Table 2. Demographics of the study's participants – numerical variables

Characteristics	M	SD	Range
Age	45.34	11.36	26-65
Years of schooling	15.15	1.46	12-19
Seniority	9.20	18.19	3-35
Knowledge of computer applications	4.08	0.91	3-5
Knowledge of new technologies	4.03	0.92	3-5

QUESTIONNAIRE'S COMPONENTS AND INTERNAL CONSISTENCY RELIABILITY

The questionnaire comprises seven parts and is provided in the Appendix. Questions 1-11 examine the demographic and socio-economic characteristics of the participants. Questions 12-14 ask about the informing needs and channels of information. Questions 15-16 ask about the cause for seeking information about suppliers. Questions 17-18 ask about the criteria for supplier assessment. Questions 19-27 ask about how they seek information about suppliers. Questions 28-30 ask about the quality/accuracy of the information about suppliers. Questions 31-34 focus on whether the information about suppliers is beneficial.

The questionnaire underwent a pre-test among 40 procurement officers to determine its internal consistency reliability. These 40 officers are not participants of the study. The internal consistency reliability is measured using Cronbach's alpha, which is the most common measure for reliability (Tavakol & Dennick, 2011). The Cronbach's alpha of the variables range between medium to very high (0.6 – 0.99). The questionnaire was sent to participants using Google Docs and the participants were asked to complete it on-line. In what follows, we detail variables that comprise multiple items within questions in the questionnaire.

Question 14 asks about the frequency of use of the information channels. The question comprises 24 items that are grouped into three variables of information channels.

- Official channels of information – 9 items including professional unions, publications and professional journals, etc.
- Incidental channels of information – 11 items including the internet, datamining companies, professional exhibits and fairs, etc.
- External channels of information – 4 statements including trade publications, foreign attachés, overseas delegations, etc.

The distinction between formal and informal (i.e., incidental) sources has been suggested by Sanderson et al. (2015). In Table 3, we describe the mean and standard deviation of these channels of information and report these variables' internal consistency reliability (Cronbach's alpha).

Table 3. Channels of Information

Variables	Items	M	SD	Range	Alpha
Official channels	1-9	2.85	0.80	2.00 - 4.22	.78
Incidental channels	10-20	3.56	0.29	3.08 - 4.17	.74
External channels	21-24	2.04	1.19	1.00 - 3.67	.67
All channels	1-24	2.82	0.67	2.01 - 3.96	.83

Question 16 asks about the reasons for seeking information about suppliers on the internet and comprises 20 items. These items, as well as the items in the other questions, underwent a construct validation process with a panel of practicing procurement officers. After the validation process the items of Question 16 were grouped into five variables as follows.

- Convenience/saving time – comprises items 1, 3, 13 and 14, whose common factor is easier access to information regarding supplier, such as accessibility, saving time, etc.
- Financial – comprises items 2, 11, 12 and 19 whose common feature is the financial aspect of the search or financial savings, such as inexpensive, organizations' internet awareness, etc.
- Need for more information – comprises items 4, 6, 7, 8, 9, 15, 16 and 17. For example, dissatisfaction with the information found through other channels, ability to learn about various supplier features, etc.

- Second opinion – this variable comprises items 10, 18 and 20. These are intuition, help from others, and generally updated.
- Anonymity –This variable is item 5.

In Table 4, we describe the mean and standard deviation of these variables and report these variables' internal consistency (Cronbach's alpha).

Table 4. Variables for reasons of search for information about suppliers on the internet

Variable	Items	M	SD	Range	Alpha
Convenience	1,3,13,14	2.94	1.22	1.00-4.50	.96
Financial	2,11,12,19	3.19	1.34	1.00-5.00	.95
Need for more information	4,6,7,8,9,15,16,17	2.80	1.17	1.00-4.25	.97
Second opinion	10,18,20	2.75	1.26	1.00-4.00	.96
All Items	1-20	2.90	1.23	1.00-4.33	.99

Questions 17 and 18 each comprise 23 items originally suggested by Dickson (1966). These questions examine the criteria for supplier selection and whether information is found on the internet about each of the criteria. The internal consistency of questions 17 and 18 is high; alpha = 0.86 and 0.98, respectively.

Question 24 comprises five items about whether the participant asks for assistance in the process of searching for supplier information on the internet. After the validation process these were grouped into two variables as follows.

- Self-search – the items that indicate the participant does not require help.
- Help – the items that indicate the participant asks for assistance.

In Table 5, we describe the mean and standard deviation of these variables and report these variables' internal consistency (Cronbach's alpha).

Table 5. Variables about the manner in which the search is conducted

Variable	Items	M	SD	Range	Alpha
Self-search	1-2	3.79	1.60	1.50-5.00	.98
Request for help	3-5	3.23	1.50	1.00-5.00	.96
All items	1-5	3.45	1.50	1.20-5.00	.97

Question 28 comprises nine items about how the participant determines the quality/accuracy of the information on the internet. After the validation process these were grouped into three variables: formal data (5 items), site friendliness (3 items) and information security (1 item). In Table 6, we describe the mean and standard deviation of these variables and report their internal consistency (Cronbach's alpha).

Table 6. Variables about assessing information quality

Variable	Items	M	SD	Range	Alpha
Friendliness	1-5	2.84	1.45	1.00-4.40	.93
Formal details	6-8	2.57	1.17	1.00-4.00	.77
All items	1-9	2.72	1.32	1.00-4.22	.95

Question 31 examines from which channels of information the participant <u>receives</u> most of the information. This question differs from Question 14, which examines the <u>extent of use</u> of the channels of information. The items construct the same variables described above in Table 3. In Table 7, we describe the mean and standard deviation of these variables and report their internal consistency (Cronbach's alpha).

Table 7. Channels of Information

Variables	Items	M	SD	Range	Alpha
Official channels	1-9	3.00	0.73	2.22 - 4.11	.77
Incidental channels	10-20	3.06	0.35	2.83 - 4.33	.72
External channels	21-24	1.78	0.83	1.00 - 3.00	.65
All channels	1-24	3.15	0.51	2.46 - 3.88	.85

CONCLUSIONS

In this paper we introduce a questionnaire used to determine the informing needs of procurement officers in Israel. The questionnaire is designed to cover various aspects of the information-seeking behavior of these officers about suppliers. The multiple-item questions of the questionnaire were validated using a panel of experts. The internal consistency reliability (Cronbach's alpha) of the questionnaire's questions ranges between 0.65 (medium) to 0.99 (very high). In addition, we describe the demographic features of the procurement officers in Israel. The procurement officers are mostly male; the majority has at least a bachelor's degree and is digitally proficient.

An overwhelming majority of the participants work in the private sector. This suggests that the private sector itself may be broken into different industry sectors to test for differences across sectors. In addition, an updated version of this questionnaire is to include distinction between different types of procurement, from new-product buying to straight rebuy situations (recall Anderson et al., 1987). To ensure that each subgroup has sufficiently many participants increasing the sample group may be needed.

Future research using this questionnaire will examine the actual informing needs of the officers and their information-seeking behavior. Moreover, by examining the relationship between the various variables and demographic features we will be able to understand why specific informing needs and information-seeking behaviors arise. This will facilitate the development of tools addressing those needs.

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APPENDIX - QUESTIONNAIRE

1. Gender: 1. Male   2. Female
2. Age: _____
3. Mother tongue: 1. Hebrew   2. English   3. Russian   4. Other:_____
4. Years of education: _____
5. Education: 1. High school   2. Professional certificate   3. B.A. 4. M.A. and above
         5. Other _____
6. Job sector: 1. Private   2. Public   3. Government
7. (Main) procurement area in which you deal:
         1. Local   2. Overseas   3. Local & overseas equally
8. Seniority as procurement manager (in years): _____
9. Size of (yearly) procurement in the organization
   1. Less than 500,000 ILS   2. 0.5 – 1 million ILS   3. 1 – 5 million ILS
   4. 5 – 10 million ILS   5. Over 10 million ILS
10-11.   What is your level of proficiency in the following tools: (1=none, 5 =very high)

	1	2	3	4	5
10. Office Tools					
11. Recent Technologies (e.g., tablets and smartphones)					

12. Have you ever searched the internet for information on suppliers in the following areas?

Query subject	Yes
Steadfastness & financial standing	
Pricelists	
Legal aspects	
Products and commodities	
Recommendations	
Geographic location	
Prestige & industry standing	
Technical ability	
Production adaptiveness	
Warranty & claims policies	
Other _____	

13. If you answered yes to any of the above, rank the level of use of the following (5 = very high, 1 = no use)

	1	2	3	4	5
Steadfastness & financial standing					
Pricelists					
Legal aspects					
Products and commodities					
Recommendations					
Geographic location					
Prestige & industry standing					
Technical ability					
Production adaptiveness					
Warranty & claims policies					
Other _____					

14. Rank to what extent you make use of each of the following information channels in the procurement process (5 = very high, 1 = no use)

	1	2	3	4	5
Professional unions					
Yellow pages					
Publications or professional periodicals					
Online or centralized information pools					
Catalogues					
Professional agents &researchers					
Commercial instructors					
Scan company reports					
Government information					
Internet					
Data collection companies					
Commercial exhibitions & fairs					
Supplier guides					
Direct mailing					
Sales managers or representatives & agents					
Media					
Personal knowledge					
Parallel purchasers or buyers					
Visits to suppliers factories					
Clients					
Foreign commercial & official publications					
Foreign attachés					
Israeli attachés overseas					
Overseas delegations					

15. To what extent do you believe that you can find answers on the internet to any question you have regarding suppliers? (5 = very high, 1 = not at all)

1	2	3	4	5

16. To what extent do you agree with the following statements? (5 = very high, 1 = not at all)

I search the net for information about suppliers because:	1	2	3	4	5
1. It is accessible					
2. It is inexpensive					
3. It saves me time					
4. All the information regarding supplier's performances can be found there					
5. I can stay anonymous					
6. I can learn from it the supplier's service features					
7. I can learn from it the supplier's price features					
8. I can learn from it the supplier's delivery arrangements					
9. I can learn from it the supplier's warranty policies					
10. It gives me an intuitive feeling about the supplier					
11. My organization is connected to many databases					
12. There is much awareness in my organization regarding use of the internet to find information about suppliers					
13. It allows me to stay updated about suppliers					
14. It spares me from the traditional methods of locating suppliers					

15. I am not satisfied with information obtained by traditional methods					
16. It helps me decide which potential suppliers to consider					
17. It helps me to decide which potential suppliers to reject					
18. I can get help from others in forums and professional groups					
19. The wide range of information on the internet					
20. To stay updated in general					

17. According to which criteria do you assess suppliers? (5 = very much so, 1 = not at all)

	1	2	3	4	5
Quality					
Delivery					
Performance history					
Warranty & claims policy					
Manufacturing services & capacity					
Price					
Technical ability					
Financial position					
Manufacturing compatibility					
Communication system					
Reputation & classification in the industry					
The desire for business					
Management &organization					
Operational supervision					
Repair services					
Access					
Impression					
Packing ability					
Work connections documentation					
Geographic location					
Amount of business in the past					
Training assistance					
Mutual agreement					

18. Which of the following criteria did you find on the internet? (5 = very much so, 1 = not at all)

	1	2	3	4	5
Quality					
Delivery					
Performance history					
Warranty & claims policy					
Manufacturing services & capacity					
Price					
Technical ability					
Financial position					
Manufacturing compatibility					
Communication system					
Reputation & classification in the industry					
The desire for business					
Management &organization					
Operational supervision					
Repair services					

Access					
Impression					
Packing ability					
Work connections documentation					
Geographic location					
Amount of business in the past					
Training assistance					
Mutual agreement					

19. What are your main activities on the internet (may check more than one answer)?
1. Email
2, Forums, support groups, distribution groups
3. Search and collection of information regarding general procurement issues, not related to suppliers
4. Search and collection of information regarding suppliers
5. Social networks (Facebook, Tweeter, Linkedin, Instagram...)
6. Other _____

20. How often do you use the internet for the following purposes?

	Daily	Twice weekly	Weekly	Bi-weekly	Monthly	Rarely	Never
For continuous updates regarding procurement							
For locating information regarding conferences and professional gatherings							
For locating information about suppliers							

21. How difficult is it for you to find information on the internet regarding suppliers? (5 = very much so, 1 = not at all)

1	2	3	4	5

22. What language do you use to search the internet for information on suppliers (may check more than one answer)?

English   Hebrew   Russian   Arabic   French   Spanish
Other:_____

23. Rank the use of the preferred language (5 = very much so, 1 = not at all)

	1	2	3	4	5
English					
Hebrew					
Russian					
Arabic					
French					
Spanish					
Other					

24. In order to find information regarding suppliers I… (5 =Highly agree, 1 = Disagree)

	1	2	3	4	5
Search using search engines					
Connect to links in sites I visit					
Inquire in forums & discussion groups					
Visit sites recommended by my direct colleagues					
Visit sites recommended by colleagues from other organizations					

25. What sites do you use to find supplier information? (5=very much, 1=not at all)

	1	2	3	4	5
Supplier's homepage					
Databases such as: Lexis, Lplma, LexisNexis					
Business information services, such as: BDI, D&B					

26. To what degree do you enjoy the internet searching process? (5=very much, 1=not at all)

1	2	3	4	5

27. My ability to find supplier information on the internet is: (5=very high, 1=none)

1	2	3	4	5

28. Rank the importance of the following criteria when examining the quality of the information found on the internet. (5=very high, 1=none)

	1	2	3	4	5
Site writers					
Site owners					
Site purpose					
Site address ending EDU/PRC					
Last site update					
Site design					
Site's navigational ability					
Links to other information sources					
Privacy policy & information security					

29. How credible is the supplier information on the internet? (5=very high, 1=none)

1	2	3	4	5

30. To what degree do you agree with the following statement: 'In general, I am satisfied with the supplier information found on the internet'?   (5 =Highly agree, 1 = Disagree)

1	2	3	4	5

31. Indicate the amount of information you usually get regarding suppliers from the following sources: (5= very much, 1= none)

	Sources	1	2	3	4	5
Official sources	Professional unions					
	Yellow pages					
	Professional periodicals/publications					
	Online/centralized databases					
	Catalogues					
	Agents & Professional researchers					
	Trade instructors					
	Company reports					
	Government info					
Incidental sources	Internet					
	Data mining companies					
	Trade exhibitions & fairs					
	Supplier instructors					
	Direct mailing					
	Representatives/agents & sales managers					
	Media					
	Personal knowledge					
	Other procurement officers					
	Visits to supplier factory					
Foreign sources	Trade & official publications					
	Foreign attachés					
	Israeli attaché' abroad					
	Overseas delegations					
	clients					

32. Do you agree with the following statements? (5 =Highly agree, 1 = Disagree)

Supplier info on the net...	1	2	3	4	5
Saves me expenses for the information					
Improves relations with supplier					
Allows me to stay updated					
Affects my decisions about managing the supplier					
Affects my decisions regarding the organization's situation					
Helps me better understand the supplier					
Leads me to ask the supplier questions that I wouldn't have otherwise asked					
Allows me to receive other evaluations from other sources					

33. How much the information you found on the internet affected your decisions regarding the evaluation of suppliers? (5 =Highly agree, 1 = Disagree)

1	2	3	4	5

34. Did you derive any other benefits, regarding the suppliers, from the information on the internet?

BIOGRAPHY

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