

How Much Time does the Workforce Spend Searching for Information in the “new normal”?

Maayan Nakash¹[0000-0001-6791-1624] and Dan Bouhnik²[0000-0002-3141-8819]

¹ Department of Information Science and
Department of Management,
Bar-Ilan University, Ramat Gan, Israel

² Department of Computer Science and
Engineering, Jerusalem College of Technology,
Jerusalem, Israel

Abstract. This paper puts a unique spotlight on key aspects related to information behavior in organizations during the “new normal.” Specifically, the study sought to examine how much time the workforce spends searching for information they need for work, and how the COVID-19 pandemic outbreak affected the perception of this time. We also investigate the relationship between organizational information search times and information management (IM) quality during the pandemic. A web-based questionnaire was distributed during the first year of the COVID-19 pandemic in four government offices in Israel and was completed by 716 employees. The results show that since the pandemic outbreak, 22.34% of the respondents spend about half a working day a week and 10.47% spend one and a half working days a week on information searches. Additionally, 31.42% agree strongly or completely agree that COVID-19 has increased the organizational information search time. The long search times have been found to be significantly linked to the decline in IM quality during the pandemic. The current research may increase the recognition of the importance of the development of technological tools to facilitate

speedy information retrieval and improve IM performance.

Keywords: COVID-19, New Normal, Search Time, Information Seeking, Information Management, Information Behavior

1 Introduction

The study of individuals' information behavior in a particular context was the focus of previous studies (for example, [1,10]). Wilson [12] defined information behavior as the “totality of human behavior in relation to sources and channels of information” (p.49). This term covers active and passive information seeking, as well as information use [6]. Information needs, preferred information sources and search efforts were considered relevant issues for investigation and understanding [4,11].

Information seeking is one of the most central concepts in human information behavior studies. It is designed to provide explanation and meaning for purposeful and active information searches which are derived from a specific goal [13]. Other thinkers defined information seeking simply as a deliberate and conscious effort to obtain

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information [2]. Information seeking occurs in many different organizational contexts [8]. The lack of methods and tools that support effective information management (IM) may lead to substantial damage to the ability to locate information in the organization [9]. Reducing employee uncertainty has been associated with the adoption of information seeking techniques [5]. Frustration caused by poor search quality in workplaces was found to be a significant contributor to employee burnout [3].

2 Research Goal

The amount of time spent on information seeking in organizations is a critical issue that deserves consideration [9]. However, up until now, it seems this matter is mainly of interest to the practitioners themselves, as the literature lacks empirical support of the subject. According to a report by the

consulting company McKinsey [7], for example, employees spend 1.8 hours every day — 9.3 hours per week, on average — searching for information. Specifically, an important area that still needs investigation relates to the information seek times following the massive shift to remote work during COVID-19. Furthermore, it seems that the relationship between information search times in the “new normal” and the quality of IM in organizations has not yet been clarified. The present study covers these gaps.

3 Materials and Methods

The study focuses on organizations in the Israeli public sector, in keeping with our goal of studying information-intensive organizations. With the approval of the Civil Service Commission, 716 employees from four government offices of various sizes in Israel completed an online survey during the first year of the COVID-19 pandemic. The questionnaire underwent a reliability test (Cronbach alpha 0.78) and included closed questions and statements on a Likert scale, alongside single and multiple-choice questions. The questions related to the pre-COVID-19 period and the pandemic period in a comparative manner. Participation was anonymous and voluntary. Respondents were requested to provide demographic information (such as gender and age) alongside employment characteristics (such as position and seniority). The data were analyzed using standard statistical models by SPSS software.

4 Results

4.1 Estimation of Average Daily Information Search Times During COVID19

The respondents were asked what their average daily search time is for information they need to fulfill their role in the organization since the COVID-19 pandemic outbreak. According to the results, 67.18% of them testified that they spend up to half an hour on a daily basis (N=481), 22.34% reported that their information search lasted about an hour (N=160), while 10.47% stated that it takes them two hours or more to locate the information they search for (N=75). See **Fig.1**.

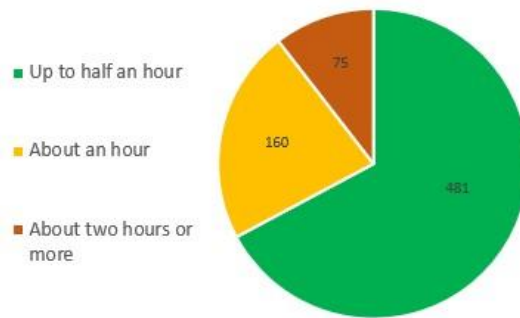


Fig. 1. The Average Daily Search Time During COVID-19.

4.2 Perception of the Impact of COVID-19 on Search Time

Participants were asked to what extent they agree that the COVID-19 outbreak has increased information search time in their organization. An analytical examination of the results reveals that 31.42% of the respondents reported that they agree strongly (N=154) or completely agree (n=71). In contrast, 43.85% of respondents indicated that they agree slightly (N=127) or agree moderately (N=187). Of the respondents, 18.99% completely disagree (N=136), while 5.73% marked “Unknown/Irrelevant” (N=41). See **Fig.2**.

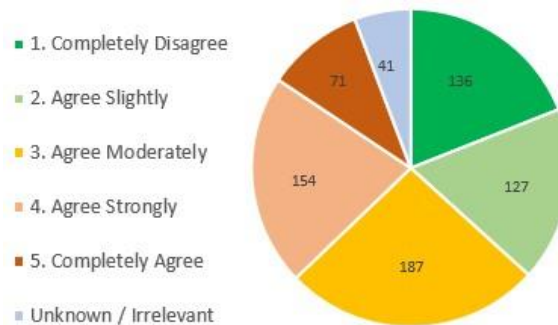
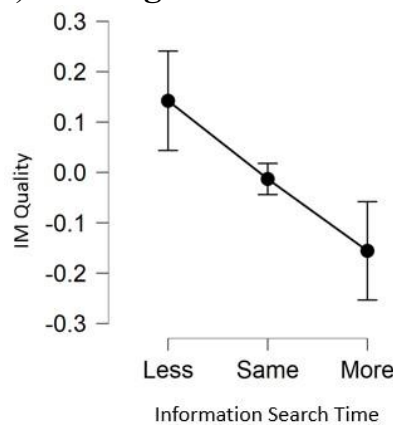


Fig. 2. The Perception of the Impact of COVID-19 on Search Time.

4.3 Information Search Time and IM Quality

We conducted a repeated measures ONEWAY ANOVA analysis to examine the influence of search time on the perception of IM quality. IM was defined as being high quality if it was reported that organizational information was fully documented, accessible, easily and quickly retrieved, high quality (up-to-date, complete, and relevant), and shared between co-workers. The results indicated a significant effect,

$F(2,705)=13.84, p<.001$. Follow-up analysis revealed that IM quality improved significantly among respondents who reported that their search time was reduced upon the pandemic outbreak ($M=0.124, SD=0.48$). In contrast, IM quality deteriorated among respondents who reported lengthening search times ($M=-0.156, SD=0.49$). IM quality was maintained (i.e., the participants experienced no significant change) among those who reported that organizational information search time remained unchanged during COVID-19 ($M=-0.80, SD=0.40$) compared to pre-COVID-19 ($M= -0.01, SD=0.35$). See **Fig.3**.



Note. Error bars 95% CI.

Fig. 3. The effects of the information search time on the perception of IM quality.

5 Conclusions

A weekly calculation indicates that a third of the participants spend between about half a workday (22.34%) and a whole workday (10.47%) a week just searching for information they need to complete their tasks in the organization. The fact that according to the worldview of 31.42% of the respondents, the pandemic led to a significant increase in search times alerts us to the new climate in which organizations now find themselves. This finding is worrying, especially as a direct significant correlation was found between long search times and a decrease in IM quality.

One can hope that the results will raise the awareness of the technological experts in organizations as to the importance of the development of digital systems for speedy and effective

information retrieval, which will support the minimization of search times and the maximization of IM performance. Of course, search times may vary according to the type and complexity of the necessary information, the resources' availability and the level of involvement in the search process. However, on the most basic level, long search times influence organizational productivity, as the employee is unavailable for other tasks during this time.

We believe more research is necessary surrounding factors which contribute to long search times. Furthermore, it is appropriate to examine in-depth efficient coherent strategies for minimizing search times in the digital work environment. We invite future researchers to join us in continuing the study of workforce information behavior even in the post-COVID-19 era. Findings in this field have the power to contribute to operational efficiency, improving organizational productivity, and employee wellbeing.

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