

## Article

# The Feeling of Fear among Local Government Administration Employees as a Result of the Introduction of E-Administration

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**Abstract:** The implementation and smooth functioning of e-administration depends on many technical and organizational factors but also on psychosocial factors, including the sense of fear. In this paper, the authors treat fear as a subjective and perceptible sense of threat. They recognize that employees may express various concerns. Previous research has shown that employees may be afraid of losing their jobs as a result of implementing e-administration. The introduction of technology brings with it the threat of dehumanization. There are also numerous concerns that the development of modern technologies will not ensure adequate economic growth because it will be too slow. This paper discusses issues related to the fear of the changes taking place in the present, in particular those related to the introduction of modern technologies, as well as problems related to the possibility of reducing unethical behavior. The research has been carried out in local administration offices using a qualitative research procedure. The results of the research indicate the existence of relationships between the quality of e-administration and fears or threats experienced or perceived by employees. If e-administration does not simplify work and does not reduce employees' workload, the only fears are employees' fear of change and their inability to master new information technologies. The data obtained allow management practitioners to overcome barriers related to the implementation of e-administration.

**Keywords:** fear; e-administration; barriers; technological anxiety

## 1. Introduction

The problem of fear and the sense of threat experienced by local government administration employees due to the implementation of e-administration has not been the subject of previous social research. There is a lack of theories explaining relationships between the sense of fear and a technical system. Therefore, there is a need to examine and describe this problem. The few publications devoted to e-administration so far have rather pointed to conditions indicating the possibility of the occurrence of fear. The first group of research papers and formulated opinions relates to the fear that administration employees experience in connection with the implementation of changes (Pryde 2001; Molnár and Karvalics 2004; Veszprémi 2018; Mészáros 2018; Linhartová 2019). The second group of issues concerns anxieties felt by customers using e-administration (Śledziwska and Zięba 2016; Werenowska 2018; Wolniak et al. 2019; Kuzionko-Ochrymiuk and Śleszyńska-Świdorska 2019).

While the literature on e-administration provides information on barriers to the implementation of e-administration (e.g., Zajdel and Michalcewicz-Kaniowska 2012; Ziemia et al. 2014; Bugdol 2015; Werenowska 2018; Kuzionko-Ochrymiuk and Śleszyńska-Świdorska 2019; Gawłowski et al. 2020;

Król and Zdonek 2020), it is not known to what extent the fear of e-administration's implementation occurs in Polish local government administration offices. Such a negative emotion was observed during studies conducted in the UK. It turned out that fear experienced by employees constituted a serious barrier to the introduction of e-administration solutions (Pryde 2001). As far as the types of fear under analysis are concerned, they have already been the subject of various research papers, but not in the context of e-administration. The fear of change (e.g., Waller and Ahire 1996; Stabler 1995; Soltani et al. 2005) may arouse the fear of missing out (Mokyr et al. 2015). So far, however, redundancies have mainly occurred in periods of recession (Kim et al. 2018). Transparency of actions taken serves to limit unethical acts (e.g., Patra 2012; Said et al. 2017, Valdovinos-Hernandez et al. 2019). However, we do not know to what extent the implementation of e-administration instills in local government administration employees the fear of having their unethical or criminal behavior revealed as a consequence of greater transparency.

The presented results of the conducted literature review and qualitative research may be useful for office managers and politicians responsible for the implementation of e-administration programs. The notion of fear and, more broadly, any negative emotions accompanying the introduction of e-administration have not been studied extensively because of the lack of an adequate theory and previous research.

The objective of this paper, which is of a narrative character, is to discuss the issue of fear experienced by local government administration employees under the influence of the implementation of e-administration based on the results of the conducted qualitative research.

The authors formulated the following research problems:

1. How do the changes consisting in the implementation of e-administration influence the sense of threat experienced by local government administration employees?
2. To what extent is it possible to refer to technological anxiety?
3. To what extent does e-administration reduce the occurrence of unethical acts due to the transparency of undertaken actions?

## 2. Basic Concepts

Fear is a concept used by representatives of various sciences in a fairly free and flexible way. For example, in organizational management, fear is used interchangeably and sometimes even identified with such concepts as anxiety, uncertainty, risk, concern, and horror. However, the authors agree that fear appears in the face of a real threat, while anxiety is irrational because it results from an imagined danger or an anticipated threat. Anxiety is the most common psychopathological symptom. Fear and anxiety are often used interchangeably, but "anxiety is rarely clearly represented as such in consciousness, while fear is often unambiguous" (Schulz 2006, p. 111). Ethnologists define fear as a motivational state induced by special stimuli, giving rise to defensive behaviors or escape (Bremer 2017). Fear involves strong emotions and concerns (Fox 2007). In the research under discussion, fear was not the same as physiological arousal (because such changes were not examined), but it was understood as the opinions of people participating in the study on negative emotions experienced by them. The authors assumed that the notion of fear included a subjective feeling of threat or anxiety.

The other basic concept is e-administration. It consists in "using modern technologies to simplify and streamline transactions between public administration and other entities such as citizens (including voters), businesses, other government agencies" (Sprecher 2000, pp. 21–22).

## 3. The Current State of the Problem under Examination in the Literature on the Subject

At present, popular academic databases (Academic Search Ultimate, Business Source Ultimate, Academic Research Source eBooks, Legal Source, ERIC, Regional Business News, Academic Research Source eJournals and OpenDissertations) do not contain articles on the problem of fear in

e-administration. A search based on such keywords as fear and e-administration did not return any results (except for an article on e-learning). Only more detailed analyses with the use of full-text search engines revealed six articles in which the keywords, i.e., fear, anxiety, and e-administration, occurred (including two articles on the Polish administration system).

Few authors see the role of fear as a factor hindering the implementation of e-administration or the use of services provided by public (central and local government) administration. At present, it is possible to distinguish two groups of issues that concern fears expressed by both local government administration employees and customers using e-administration services.

The first group of opinions concerns the fears experienced by administration employees during the implementation of e-administration (Pryde 2001; Molnár and Karvalics 2004; Veszprémi 2018; Mészáros 2018; Linhartová 2019). Research conducted in the UK at the beginning of the 21st century showed that public administration employees could be afraid of redundancies that might occur due to the introduction of modern technologies. This problem was exacerbated by the government's excessive involvement in the change implementation process (Pryde 2001). It is believed that the fear of the unknown combined with personal opposition to changes taking place in the work environment is one of the barriers to the implementation of e-administration. Other barriers include insufficient computer literacy, ignorance, and the digital divide (Molnár and Karvalics 2004; Veszprémi 2018). Research shows that e-administration, like any other organizational and technological improvement, raises numerous concerns and anxieties during the initial period of implementation (Mészáros 2018). An extremely interesting view has been put forward by V. Linhartová (2019). She claims that e-administration increases the possibility of monitoring processes, which results in greater transparency, and the fear of the consequences of exposing unfair practices is a means of reducing corruption. Storing transactional data makes it possible to link people to their unauthorized activities. Through the use of e-administration, contact between officials and citizens is limited.

The other group of issues relates to anxieties experienced by customers who are using or are about to use e-administration (Śledziwska and Zięba 2016; Werenowska 2018; Wolniak et al. 2019; Kuzionko-Ochrymiuk and Śleszyńska-Świdorska 2019). In research conducted in Poland, attention was drawn to anxieties accompanying customers using e-administration. They were afraid that their matters dealt with over the Internet would not be completed successfully (as much as 46% of respondents feared this) (Werenowska 2018). Barriers related to the functioning of e-administration among people with disabilities were also examined. One of the identified weaknesses of e-administration is the insufficient functionality of websites, particularly in the case of people with visual disabilities (Król and Zdonek 2020). Among many factors hindering the use of e-services provided by offices (e.g., the functioning of an office's website on different browsers or speed), emphasis was put on the very important aspect of ensuring the security of services (Wolniak et al. 2019). Customers' fears and the sense of insecurity related to the implementation of e-administration were also highlighted in the research projects conducted by Śledziwska and Zięba (2016) as well as E. Kuzionko-Ochrymiuk and A. Śleszyńska-Świdorska. Focusing on barriers to the functioning and development of e-administration, researchers should pay attention to the fact that the provision and development of services, including e-services, is undoubtedly influenced by various policies of the state. Research carried out in Poland has shown that the subsidiarity principle is applied in practice in a very inconsistent way in relation to regulations concerning the provision of public services (Gawłowski et al. 2020). One of the reasons for the weakness of e-administration in government may be the lack of a comprehensive process-based approach in the management of public administration offices (cf. Krukowski and Raczyńska 2019).

There is therefore no doubt that one of the aspects that determines the correct use of e-administration is the mitigation of technological anxiety and the assurance of security (Phang et al. 2006; Viñarás-Abad et al. 2017). Technological anxiety is related to not only the fear of what is new (and therefore uncertain) but also the anxiety of learning (Goldberg 1998).

The analysis of the presented views and research results indicates that the problem of fear is visible in both customers, who want to have access to safe administration services, and administration employees, who may be afraid of the following:

- changes taking place in the functioning of the organization in terms of e-administration,
- redundancies resulting from process automation or robotization, and
- the curbing of corrupt practices (in the case of a small group of corrupt employees).

### 3.1. *The Fear of Technological Changes*

The fear of implementing and maintaining e-administration is, in fact, the fear of change. This type of fear has been the subject of numerous studies, and, in the classical approach, it is combined with the fear of losing power, socio-occupational positions, concerns about continued employment, and uncertainty (Waller and Ahire 1996; Stabler 1995; Soltani et al. 2005). There are a number of reasons for the fear of changes resulting from the introduction of modern technologies. Firstly, many of the activities performed so far by people are being taken over by artificial intelligence (The Economist 2016). The development of modern technologies has always aroused the fear of missing out (Mokyr et al. 2015). Secondly, the introduction of modern technological solutions threatens the health of employees due to an overload of information they obtain and have to process (Lee 2000). Technologies disrupt the boundaries between private and professional life (Talent Development 2014). Thirdly, people fear modern technologies for one important reason, namely, previous technical revolutions have almost always led to job losses and changes in the employment structure. Nevertheless, such concerns do not always materialize. According to The Economist (2018), the introduction of the barcode scanner did not reduce employment in the retail sector. Between 1980 and 2013, the number of jobs in the sector rose by 2%. The introduction of automated teller machines freed bank employees from boring, repetitive activities.

### 3.2. *The Fear of Dismissal*

As has been mentioned above, one of the barriers to the implementation of e-administration is the fear of redundancy (Pryde 2001). The fear of dismissal does not have to be accompanied by the fear of unemployment. Much depends on not only the situation in the labor market but also the possibility of finding a new job and the competence and skills of candidates for employment. In Poland, for example, the highest unemployment rate, about 29%, was recorded in 1981 and 1982. Yet research conducted in December 1982 showed that as much as 94% of the national sample of public sector employees were not afraid of being dismissed, and only less than 4% expressed such concerns. Furthermore, 64% of respondents believed that they could find the same job elsewhere, while 25% were afraid that it might be difficult (Jasińska and Siemińska 1983). The conducted literature review indicates that the issue of the fear of redundancy among local government administration employees has not been the subject of any research. However, on the basis of studies carried out in other organizations, it can be assumed that employees who are afraid of losing their jobs come to work despite illness or indisposition (Pärli 2018). The fear of dismissal causes employees not only to experience dissatisfaction with work but also to join outplacement programs (Kakakhel et al. 2013). In order to reduce fear and protect both employees and employers from unfair dismissal, various legal regulations are being enacted. Employers' concerns about the consequences of dismissal (Ellis 1981) can effectively discourage them from hiring new employees.

In public administration, redundancies occur mainly during recessions (Kim et al. 2018). Plans to carry out group layoffs quite often stop at the stage of political announcements, as was the case in Poland in 2011. A parliamentary bill drafted at that time provided for a 10% reduction in the number of administration employees in the years 2011–2013. However, only between 2008 and 2012, their number grew by 19,285 according to a report prepared by the Republican Foundation (Sikora 2012). In many countries, public administration employees are very rarely dismissed (Elling and

Thompson 2008). The problem in public administration, especially state administration, is the lack of inflow of exceptionally talented and creative employees (Dewan and Myatt 2010). The same situation occurs in Poland, mainly due to low salaries paid to administration employees.

### 3.3. *The Fear of Transparency in Decision-Making*

There is no doubt that the implementation of e-administration and the consequent increase in transparency can be a tool for reducing corruption (e.g., Said et al. 2017).

Studies on the level of corruption are sometimes combined with transparency rankings (e.g., Valdovinos-Hernandez et al. 2019). In general, the higher the level of transparency, the greater the possibility of detecting acts of corruption. It is widely accepted that transparency, accountability, and democratic processes are the qualities of effective governance of the state and enemies, while their antitheses include greed and corruption (Patra 2012).

To the extent that the fear of transparency occurs at all, it is experienced by officials who are corrupt and those who are afraid of negative opinions on complex public administration service provision procedures expressed by customers in satisfaction survey questionnaires (if any).

The conducted literature review shows that the different types of fear influence each other and are strongly interconnected. For example, the fear of modern technologies is not only the fear of change but also the fear of dismissal and learning. Publications on e-administration indicate anxieties and a sense of threat; the concept of fear is used conventionally (as a sense of threat).

## 4. Method

The method used in this paper was a literature review. The authors became familiar with the basic articles, reviewed them, prepared a map of the available literature, summarized the selected items, and arranged the collected material. Such a course of action was consistent with the research methodology proposed by Creswell (2013). The authors also followed the principles of research conducted in the fields of management and business (Easterby-Smith et al. 2015).

Direct interviews were used in the empirical research. The authors decided that they provided good opportunities to become familiar with and better understand a particular issue. They take into account an interviewee's reflections and allow participants to discover new problems (Easterby-Smith et al. 2015, pp. 133–34). The qualitative procedure (Creswell 2013) included the following: the selection of a research strategy (a narrative study in which an interviewer's views were combined with facts from a participant's life), the targeted selection of participants (local government employees involved in the provision of e-services), the determination of data acquisition sources and preparation of an interview protocol, and data analysis and interpretation (including data preparation and organization, a review of all data, data coding, the description of the situation, the selection of a presentation method, and interpretation). On the basis of the material collected during direct interviews, a qualitative and quantitative analysis of the content was carried out using NVivo software. The qualitative analysis included encoding selected statements of the respondents on the basis of queries (the occurrence of the keywords in documents based on a previously prepared list). The queries were created in accordance with Boolean rules. In the case of the quantitative analysis, the authors prepared, among other things, statistics on the frequency of the occurrence of individual words in the body of the texts of all transcriptions. The quantitative analysis was carried out after removing the so-called "stop words" for the Polish language.

In the narrative research, the authors asked the participating local government administration employees for statements about their experiences with e-administration and then combined the acquired information with their own views.

The qualitative method was chosen in view of the relatively narrow range of research on the subject. The authors concluded that it was difficult to distinguish variables at that stage (Creswell 2013, p. 66). The research was conducted in January and February 2020. Fifteen employees of local administration offices had been selected for participation in the research. The selection of the participants had been



based on purposive sampling. Interviews were conducted only with those employees who had at least three years' work experience and had used administration tools in a direct way (had direct contact with customers). The venues of the interviews were Polish local government administration offices (Rzeszów and Krzanowice). In Poland, all public administration offices operate on the basis of the same e-service provision programs (e.g., vehicle registration or identity card issuance processes). Thus, everywhere, regardless of the location of a particular office, individual customers may face the same barriers and restrictions.

To complement the interviews, the authors used the method of exemplification, which aims to illustrate and justify additionally selected research assumptions with certain properly selected examples (Kazmierska 2018). This method is not a complete case study but rather a deliberately and selectively applied approach serving to enrich the process of explaining the reality under examination.

The basis for the application of the exemplification method was the authors' personal participation in quality management system audits conducted in local government administration offices. Thus, the data necessary for the application of exemplification were obtained through such research techniques as participatory observation, reviews of documents, and interviews with persons responsible for the maintenance and improvement of quality management systems. These were, therefore, typical qualitative research techniques (Williams 2011). The audits were carried out in the years 2012–2019 (a total of 50 certification and supervision audits, during which free-form interviews were conducted with public administration employees and system documentation was analyzed).

In order to identify barriers related to the functioning of e-administration, the service provision processes were analyzed (a review of the Electronic Platform of Public Administration Services: ePUAP) in terms of the possibility of providing e-services on an online basis only.

## 5. Fear Experienced by Local Government Administration Employees Due to the Implementation of E-Administration—Qualitative Research Results

### 5.1. Changes

In everyday work, the use of e-administration consisted mainly in sending various reports and accounts to "higher-level" entities and conducting some customer service provision processes. A respondent stated, "I transfer documents to the 'higher-level' centers, calculations of various types related to restricted grants, all correspondence among different offices" (woman, approximately 50 years old, 30 years' work experience, accountant). In some activities (e.g., the process of issuing identity cards), the e-administration acted as an intermediary between the customer and the entity authorized to provide a particular service.

In practice, the introduction of various e-administration tools was linked to reporting. The objective was to achieve a faster circulation of documentation among different offices. At the same time, customer service left much to be desired for a long time. The authors' experience (from audits conducted based on the process system) indicates that the main reason for this was the fact that when the service provision processes were being described, no care was taken to simplify them. The applicable law was not changed, either (e.g., many services require the customer's personal appearance in the office, archaic documentation authentication, or numerous attachments).

It should be emphasized that the majority of the respondents assessed the usefulness of e-tools and the possibility of performing the service provision process very positively. The term "positive" was indicated by the majority of the respondents as the first response coming to mind when asked about emotions connected with the use of e-administration tools. Interestingly, no other emotions were referred to spontaneously. Nowadays, reactions to e-tools are not excessively emotional, as they fit into the routine of everyday professional activities. In the context of this question, there was a lot of justification for actions aimed at broadening the scope of e-services and e-administration. In general, all respondents showed awareness of the advantages of using e-administration tools. The first and a frequently mentioned advantage was the fact that the entire document circulation process was "faster" (time-saving): "Surely, it's a faster way of moving documents than the traditional method of using the

postal service” (woman, approximately 50 years old, 30 years’ work experience, accountant). “There is a faster flow of information per position” (man, approximately 40 years old, 15 years’ work experience, inspector).

Another important issue was the “saving” of paper. Thus, environmental, or indirectly economic, issues that were not directly articulated could acquire considerable importance. “The only thing, this is such a plus that, let’s say, my contractors, they don’t have to send these things in hard copies; they can send a lot of things electronically” (woman, 40 years old, 3 years’ work experience, office clerk). What deserves to be emphasized is the fact that the respondents made these assessments not as clients but as employees. In practice, the performance of many services on an online basis only is not feasible, which was proved by additional research with the use of the ePUAP platform. As has already been noted, many services still require the customer’s personal appearance, additional consultations, or numerous documentary attachments. According to the respondents, e-administration was also greatly convenient for citizens: “I think that, for the inhabitants, it is a convenience because they don’t have to leave house but send an application for an identity card, some letter or something” (woman, approximately 50 years old, 30 years’ work experience, manager). However, the majority of the interviewees said that if anybody used e-services, it was young people because older residents lacked the necessary technical skills.

At the very beginning, all employees had expressed concerns about e-administration. They were mainly concerned about whether they would be able to cope with the new tools and software. They were, on the one hand, afraid of the unknown and, on the other hand, uncertain about their own skills necessary to use modern technologies (uncertainty about their own competences). Such a phenomenon is nothing new. The fear of change is one of the best-researched types of fear. Furthermore, there were also problems related to competence trust. The other sources of fear were related to the very nature of the task, which required breaking through the technological barrier and the necessity to use an IT tool requiring an electronic or virtual circulation of documents: “I was afraid that maybe I wouldn’t manage to learn it because it’s all about the computer (...) and that there wouldn’t be anything on paper, only in the computer” (woman, approximately 50 years old, 30 years’ work experience, manager).

The other concerns were related to the usefulness and efficiency of the implemented tools. One respondent said, “As regards the public procurement system, we were afraid that these systems were not coordinated, that there was talk of electronic signatures, and that there would be problems with collecting those tenders. And there were” (woman, approximately 45 years old, 15 years’ work experience, office clerk). The respondents described the imperfections of the first implemented tools and their slow operation (“clicking and waiting”, system hanging, errors popping up, etc.): “I clicked once and had to wait a while. I clicked the second time, the work was saved, and again I had to wait, but now it’s a bit faster. It works somehow, and it doesn’t hang as often as it used to” (woman, 40 years old, 15 years’ work experience, deputy manager). The respondents also stressed that an assessment of the functioning of e-administration and the motivation to use it depended on the technical preparation of tools offered to administration employees: “If a tool is very intuitive and after the first, second, third use, you can see that it is okay, that it can be done, then you start to accept it. But if it is clumsy and very complicated, and each procedure requires reaching for an instruction manual to go through all the stages, then sending a single document via the ePUAP takes, for example, 1.5 h, and only if the colleague wants to help you because I don’t know how to do it myself; it is discouraging” (woman, approximately 45 years old, 15 years’ work experience, office clerk). The respondents indicated that not all tools were simple and easy to use (e.g., they considered the ePUAP system as easy); some (e.g., those related to public procurement) were perceived as complicated and often aroused frustration and dislike in the users: “When it comes to public procurement, it is too complicated, confusing. Unfortunately, not everybody in the office knows how to deal with it; it is too complicated. I think it should be considerably simplified. If it is to be used on a large scale, it should be simplified to the maximum. I also use the ePUAP system; it is not so bad. It is not too complicated; it is rather simple” (woman, approximately 45 years old, 15 years’ work experience, office clerk).

The implementation of e-administration has involved and continues to involve the acquisition of new skills and knowledge of information technologies. Indeed, many older workers have had to spend a lot of time learning how to work with new computer software.

There has not been much change in job descriptions and the allocation of tasks; perhaps this is why concerns about e-administration were not so great.

The employees were asked to describe the changes that, according to them, would take place in the organization in the near future in relation to the further implementation of e-administration. The prevailing opinion was that little really depended on the employees themselves, as there were top-down procedures to follow. Such a view expressing, in fact, attitudes towards change is nothing new. During numerous interviews carried out as part of quality audits, employees repeatedly stressed that their role was only to carry out instructions. Those who had some ideas were very often afraid to submit them or said that no one would listen to them anyway. In practice, administration employees have considerable knowledge about how to improve the quality of services, but it is precisely the lack of motivation and the belief in their powerlessness that prevent them from using this knowledge. As one of the employees stated, "We, as employees, are obliged by our superiors to follow and comply with all procedures relating to the drafting of letters, responding to enquiries, sending correspondence, so I cannot say what will be" (woman, approximately 40 years old, 15 years' work experience, deputy manager).

The application of the exemplification method allowed the authors to make the following observations:

- In the initial period of implementation of e-administration, the employees were, as seems natural, focused on mastering the technological novelties (which made them more afraid of not being able to use the new software than of customers failing to cope with online services).
- The fear of the new software caused the employees to have hardly any time or opportunities for simplifying the service provision processes.

## 5.2. *The Fear of Technology*

The security of the provided e-services was not a major problem for the respondents. Some of them even stated that, "emails would be more likely exposed to some hacking activities than e-services. If everyone in the office has their own password to log in, no one else has access" (woman, approximately 50 years old, 30 years' work experience, manager).

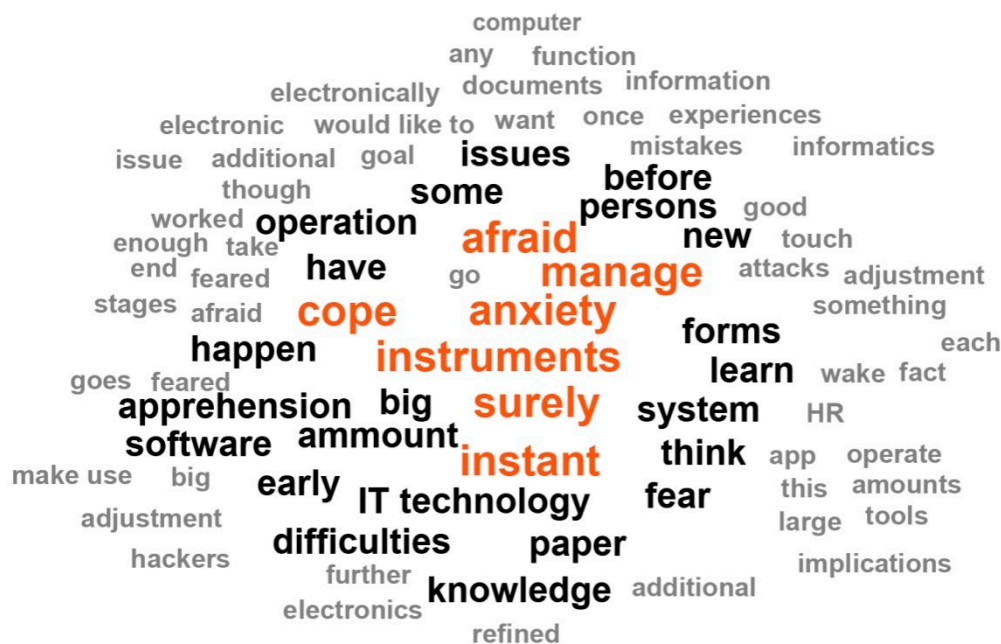
The employees were also aware of anxieties that could be experienced by other employees (those who did not have any contact with e-administration at work) in connection with the further implementation of e-administration. As one of the respondents indicated, "I think this is about skills and adaptation to a given technology. As far as the preparation of an electronic version of a request or a response is concerned, I think this is a matter of training an employee properly; this is the only such concern" (man, approximately 30 years old, 4 years' work experience, inspector). In the opinion of the respondents, these fears could mainly accompany older workers who may feel afraid of "switching to something new (...); in the case of older employees, it is the ordinary fear of not being able to cope with something or the unwillingness to break certain stereotypes" (woman, approximately 45 years old, 15 years' work experience, office clerk). Some of the statements contained the opinion that other employees might be afraid that they would not receive sufficient support in the form of training: "They are afraid that they will not be adequately trained, that they will not be able to cope with this" (woman, approximately 50 years old, 20 years' work experience, manager). It was connected indirectly with the fear of making mistakes. Interestingly, the respondents rarely declared that they themselves were afraid of using e-administration or broadening the range of e-services.

Some of the respondents indicated another interesting problem. Some computer programs are difficult to operate, and without the help of others, it is difficult to master them. The employees were afraid that e-services would be even more complicated, and therefore, those of them who found it difficult to keep pace with changes would have more problems. Additional concerns were related to



everyday use of computer programs, which may “hang” at the least appropriate time and prevent the employee from performing their duties properly. In addition, not all e-tools are compatible with each other, which can often lead to system malfunctions: “The only concern I have on a daily basis is that these systems may fail. For example, what happens if I am to open submitted tenders at a specific hour, but the system hangs, or something is not right because these systems are also connected with ePUAPs. And something may not be connected with the electronic document circulation system; something may go south somewhere. And because of that, I may have a problem there, because I did not provide a contractor with a tool” (woman, 40 years old, 3 years’ work experience, office clerk).

The frequency of the occurrence of individual words related to fear in the transcripts of all interviews is presented in Figure 1. The most frequently used terms related to fear included “manager”, “cope”, “anxiety”, “afraid”, and “instruments”.



**Figure 1.** Word cloud: fears.

In the next part of the interviews, the employees were asked to comment on threats they had to face in connection with the use of e-administration. They indicated the threat of errors in the use of computer programs and the threat of negative consequences of changes. One of the interviewees said, "They are only afraid of having more work to do and having to learn how to use new software. And it is no secret that the majority of the employees are afraid of changes. They have got used to one system and say that it is good and there is no need for change. They fear changes" (woman, approximately 50 years old, 20 years' work experience, manager).

What do these statements mean? It appears that the employees were not afraid of redundancies that may result from the implementation of e-administration. After the introduction of some new technological solutions, the volume of work did not decrease; on the contrary, there was more work in some areas. In local government administration offices, there was no loss of jobs; on the contrary, employment increased. This is due to not only technological changes but also the allocation of new tasks that have not existed or have been carried out at the central level so far. As the respondents indicated, despite the existence of electronic document circulation systems, a significant part of documentation was still printed. Although documents were available in an electronic version, offices were obliged to maintain paper documentation, which resulted in the obligation to maintain two parallel registers and to perform particular actions twice: "I'd say that there's a whole lot of extra work because even though we have an electronic version of these documents, we still have to keep everything on paper" (man, approximately 40 years old, 10 years' work experience, inspector). "We initiate all cases twice

because apart from starting a case in the e-PUAP, we have to enter all paper documents in the system and file them in appropriate folders. Thus, we do one thing twice. In PROTON [system of electronic circulation of documents] on the computer, for example, and now again in hard copies filed in folders (...) You can say that the scope of my duties has increased because things have to be registered twice. So, you can say there are more duties, more work" (woman, approximately 50 years old, 30 years' work experience, manager). Such a situation imposed an obligation to perform additional actions on administration employees.

The respondents positively assessed the changes consisting in the implementation of e-administration. They were concerned only about potential data theft, which must result from the growing awareness of cyber threats. The respondents were reluctant to talk about their emotions. Rather, they tried to direct their statements to the problems of evaluating the changes taking place in their work environment.

The statements indicated that only older employees should be concerned about changes because of difficulties with handling e-tools. The fears also concerned technical safeguards against possible hacking attacks: "Just as hackers break into a bank, I'm not an expert in this field, but I know that such situations happen. I can't determine the level of security of the tools we have at our disposal. If it is possible to break into a bank, I think it is also possible to break into our office" (woman, approximately 45 years old, 15 years' work experience, office clerk). Some respondents were afraid that personal data may leak due to some clerical mistake: "Maybe someone makes a mistake, someone sends information to wrong addressees. There may be a leak of important information. The consequence might even be criminal liability" (woman, 40 years old, 15 years' work experience, deputy manager).

There were also statements that indicated the appearance of the fear of change, but only in situations where employees had to face new software for the first time.

The conducted audits show that the fear of technological change concerned mainly older people, but it was related to an employee's function in an organization. This means that the level of fear of people performing auxiliary (e.g., administrative) functions was different from the level of fear experienced by employees who had direct contact with customers. An additional factor intensifying fear was access to all kinds of licenses or confidential information. People were afraid of monitoring and losing the right to perform work if they failed to comply with the rules of a particular license.

### 5.3. *Transparency of Services*

In the context of the implementation of e-administration, the transparency of the process constitutes a very important element. It is assumed that thanks to the electronic circulation of documents, the process should be more transparent. This feature was also very strongly emphasized by the interviewed administration employees. According to them, the process was "transparent", "accessible", and "reasonable". As one of the respondents indicated, "Every interested person can have access to their case and follow its processing on an ongoing basis. This is convenience and transparency (...) When this e-administration is eventually implemented, every customer, every citizen will be able to see at what stage their matter is and what documents have been gathered. Whether it is an opinion or a letter, it has to arrive in a physical form and be looked at" (man, approximately 40 years old, 10 years' work experience, inspector). This feature was particularly important in the context of public procurement procedures: "What I can say is that when it comes to public procurement law, it's obviously very transparent. There is no possibility of adding anything from outside the system" (woman, approximately 45 years old, 15 years' work experience, office clerk). However, the transparency of the e-service provision process was assessed and interpreted differently. One of the interviewees said, "(...) it is rather transparent because when you receive a letter and attachments, everything is transparent when you print it out, isn't it? Sometimes it is impossible to print a document because tables are too wide, and you have to send it to some other positions, and this is an additional job" (woman, approximately 50 years old, 30 years' work experience, manager).



## 6. Conclusions

On the basis of the conducted research, it can be concluded that changes consisting in the implementation of e-administration influenced the appearance of the sense of threat in local government administration employees. At the same time, employees themselves expressed concerns mainly about the difficulty of mastering new computer software and information technology tools and, consequently, additional workloads and duties. Therefore, there was a noticeable problem of technological anxiety. According to [Mokyr et al. \(2015\)](#), this concept can be considered from three different perspectives. Firstly, people are afraid of losing their jobs. Secondly, the introduction of new technologies carries the threat of dehumanization, and thirdly, the development of modern technologies may not ensure adequate economic growth because it will be too slow. However, the research carried out by the authors did not confirm the occurrence of such concerns. As has been noted above, employees expressed anxieties about whether information technology tools would work efficiently and whether they themselves (particularly older employees) would be able to learn how to use them. The research did not indicate that e-administration reduced the occurrence of unethical acts due to the transparency of actions taken. This is most probably due to two reasons. The first reason is related to the limitations of the interview technique. People were afraid to talk about unethical behavior. The second probable reason is that the e-administration itself has not simplified many service provision procedures. There is no full transparency in local government administration that would allow for the exercise of overall control.

On the basis of the analysis of the audit notes, an interesting conclusion emerges concerning the fear of changes and novelties. As already noted, the employees were focused on mastering technological novelties. This made the fear of failure to master new software dominate over the fear that customers would not manage to use online services. Perhaps this is why the maturity of online services and the maturity of customer orientation are not high.

The recommendations for practice are as follows:

- The implementation of e-administration cannot take place without simplifying legal regulations (those elements that require too much consultation and customers' appearance in person have to be eliminated).
- Paper documentation should not be provided if it has already been submitted electronically.
- The ways of submitting enclosures to applications should be simplified (at present, enclosures to an electronic application have to be scanned, but often, different parameters that the photocopies have to meet are indicated (e.g., colors, size, pixels, etc.)).
- It is necessary to pursue the fastest possible integration of various distributed databases (the lack of such integration significantly lengthens service provision processes).
- The training of administrative personnel and the use of the simplest possible technical solutions play an important role in reducing various fears and concerns.

Further research should focus on the following issues:

- an assessment of the impact of the strategic orientation and the effects of e-administration ([Hawrysz 2020](#)),
- the issue of trust (as lack of trust is one of the sources of control and the introduction of administrative barriers),
- the relationship between e-administration and customer satisfaction assessments,
- organizational relations (in particular, the course of those processes that are carried out outside the office to which applications or requests are submitted),
- counterproductive behaviors of office employees (it is interesting to what extent such behaviors moderate the process-based approach),
- the maturity of the process-based approach (current organizational structures are of a functional character, and the course of processes is complicated), and

- differences in the course of processes before and after the implementation of e-administration (e.g., how much process transparency has actually increased).

## 7. Limitations

First of all, the adopted method of a literature review is not a perfect way to obtain information. So far, research on e-administration has been carried out in different public organizations in different cultures. Secondly, as has already been mentioned, the notion of fear has been treated very flexibly (and used interchangeably with subjectively perceived threats, various anxieties, and concerns). Thirdly, it is important to remember the limitations inherent in qualitative research. An interpretation of data obtained by means of interviews depends on the structure of interviews, the knowledge and skills of researchers, and their ability to avoid bias (Easterby-Smith et al. 2015, p. 141). In the future, research on this subject should be conducted on a larger group of employees and preferably with the use of an additional research method, e.g., the diary method, which allows for an in-depth examination of affective, cognitive, and social processes (Zaccarelli and Godoy 2010). It facilitates the acquisition of data that can be easily forgotten or overlooked, for example, in retrospective methods. It also eliminates distortions resulting from interactions (as during face-to-face interviews) and allows for the recording of emotions and assessments—immediately, not after some time (Koopman-Boyden and Richardson 2013).

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## References

- Bremer, Józef. 2017. Co kognitywistka może nam powiedzieć o lęku i strachu? In *Anatomia Strachu. Strach, Lęk i ich Oblicza We Współczesnej Kulturze*. Edited by Bogusława Bodzioch-Bryła Lilianna Dorak-Wojakowska. Kraków: Wydawnictwo Naukowe Akademii Ignatianum, pp. 23–42.
- Bugdol, Marek. 2015. Organizacyjne problemy wdrażania e-usług w administracji samorządowej. *Samorząd Terytorialny* 7–8: 157–65.
- Creswell, John W. 2013. *Projektowanie Badań Jakościowych*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Dewan, Torun, and David P. Myatt. 2010. The Declining Talent Pool of Government'. *American Journal of Political Science* 54: 267–86. [\[CrossRef\]](#)
- Easterby-Smith, Mark, Richard Thorne, and Paul Jackson. 2015. *Management and Business Research*. Los Angeles and Singapore: Sage.
- Elling, Richard, and Lyke Thompson. 2008. Dissin' the Deadwood or Coddling the Incompetents? Patterns and Issues in Employee Discipline and Dismissal in the States'. *International Journal of Public Administration* 31: 552–73. [\[CrossRef\]](#)
- Ellis, Norman. 1981. Employment law. *British Medical Journal (Clinical Research Edition)* 282: 1040–41. [\[CrossRef\]](#)
- Fox, Wesley L. 2007. *Courage and Fear. A Primer*. Washington, DC: Potomak Books Inc.
- Gawłowski, Robert, Saulius Nefas, and Krzysztof Makowski. 2020. Subsidiarity Principle—Its Realization in Self-Government in Lithuania and Poland. *Administrative Sciences* 10: 14. [\[CrossRef\]](#)
- Goldberg, Beverly. 1998. High-tech anxiety. *Management Review* 87: 33.
- Hawrysz, Liliana. 2020. Strategic Orientation and Effects of E-Administration: Findings from the Miles and Snow Framework. *Administrative Sciences (2076–3387)* 10: 35. [\[CrossRef\]](#)
- Jasińska, Aleksandra, and Renata Siemieńska. 1983. Attitudes and Life Aspirations in Contemporary Polish Society. *International Journal of Sociology* 13: 44–85. [\[CrossRef\]](#)
- Kakakhel, Shahid J., Qasim Mansoor, and Gohar Zaman. 2013. Comparing HR practices in PTCL in Pre & Post Privatization Era. *Abasyn University Journal of Social Sciences* 6: 79–90.



- Kazmierska, Kaja. 2018. Doing Biographical Research-Ethical Concerns in Changing Social Contexts. *Polish Sociological Review* 3: 393–411. [CrossRef]
- Kim, Junghack, Craig S. Maher, and Joocho Lee. 2018. Performance information use and severe cutback decisions during a period of fiscal crisis. *Public Money & Management* 38: 289–96. [CrossRef]
- Koopman-Boyden, Peggy, and Margaret Richardson. 2013. An evaluation of mixed methods (diaries and focus groups) when working with older people. *International Journal of Social Research Methodology* 16: 389–401. [CrossRef]
- Król, Karol, and Dariusz Zdonek. 2020. Local Government Website Accessibility—Evidence from Poland. *Administrative Sciences* 10: 22. [CrossRef]
- Krukowski, Krzysztof, and Magdalena Raczyńska. 2019. Attributes of Process Maturity of Public Administration Units in Poland. *Administrative Sciences* 9: 84. [CrossRef]
- Kuzionko-Ochrymiuk, Ewa, and Anna Śleszyńska-Świdarska. 2019. Wykorzystanie e-usług administracji publicznej przez współczesnego klienta. *Przedsiębiorczość i Zarządzanie* 20: 165–82.
- Lee, Karen. 2000. Information overload threatens employee productivity. *Employee Benefit News* 14: 68–70.
- Linhartová, Veronika. 2019. Curbing Corruption in the Public Sector by Utilizing Electronic Public Administration. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis* 67: 1039–48. [CrossRef]
- Mészáros, Pál Emil. 2018. The Evolution of Electronic Administration and Its Practice in Judicial Proceedings. *Pravni Vjesnik* 34: 141–55. [CrossRef]
- Mokyr, Joel, Chris Vickers, and Nicolas L. Ziebarth. 2015. The History of Technological Anxiety and the Future of Economic Growth: Is This Time Different? *Journal of Economic Perspectives* 29: 31–50. [CrossRef]
- Molnár, Szilárd, and László Karvalics. 2004. Közigazgatás az Internet korában—az e-kormányzat kutatói szemmel. *Információs Társadalom* IV: 5–23.
- Pärli, Kurt. 2018. Presenteeism, Its Effects and Costs: A Discussion in a Labour Law Perspective. *International Journal of Comparative Labour Law & Industrial Relations* 34: 53–75.
- Patra, Bibhu Prasan. 2012. Government, Governance and Corruption: The Case of 2G Spectrum Scam. *Vilakshan: The XIMB Journal of Management* 9: 91–108.
- Phang, Chee Wei, Juliana Sutanto, Atreyi Kankanhalli, Yan Li, Bernard C.Y. Tan, and Hock Hai Teo. 2006. Senior citizens' acceptance of information systems: A study in the context of e-government services. *IEEE Transactions on Engineering Management* 53: 555–69. [CrossRef]
- Pryde, Andrew. 2001. Job fears "hinder modernisation." Public Finance. Available online: <http://search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=5406040&site=ehost-live> (accessed on 20 May 2020).
- Said, Jamaliah, Marlina Wati Ishak, and Normah Omar. 2017. The Effectiveness of E-Procurement System in Reducing Lobbyist Involvement in Public Procurement. *Asia-Pacific Management Accounting Journal* 12: 221–47.
- Schulz, Clarence. 2006. Applying Sullivan's Theory of Anxiety versus Fear. *Psychiatry: Interpersonal & Biological Processes* 69: 110–12. [CrossRef]
- Sikora, Kamil. 2012. Dodatkowe 10 Miliardów na Urzędników. Tak rząd Donalda Tuska Zmniejsza Administrację. Available online: <https://natemat.pl/32551,dodatkowe-10-miliardow-na-urzednikow-tak-rzad-donald-tuska-zmniejsza-administracje> (accessed on 2 March 2020).
- Soltani, Ebrahim, Pei-Chun Lai, and Naser Shams Gharneh. 2005. Breaking through barriers to TQM effectiveness: Lack of commitment of upper-level management. *Total Quality Management & Business Excellence* 16: 1009–21. [CrossRef]
- Sprecher, Milford. 2000. Racing to e-government: Using the Internet for citizen service delivery. *Government Finance Review* 16: 21–22.
- Stabler, Joycelyn D. 1995. The eye of the storm. *Journal for Quality & Participation* 18: 54–60.
- Śledziewska, Katarzyna, and Dominik Zięba. 2016. *E-administracja w Polsce na tle Unii Europejskiej*. Warszawa: Digital Economy Lab UW.
- Talent Development. 2014. Technology Threatens Work-Life Balance, But Most Employees Say That's OK. *Talent Development* 68: 17.
- The Economist. 2016. March of the Machines. *The Economist*, October 5–11, 20–22.
- The Economist. 2018. Artificial stimulant. *The Economist*, September 15–21, 67.
- Valdovinos-Hernandez, Ivan, Mike Szymanski, and Karina Grabowska. 2019. Mea Culpa—The Role of Religion in Corruption Perception. *Forum Scientiae Oeconomia* 7: 49–62. [CrossRef]



- Veszprémi, Bernadett. 2018. Organisational Framework of Hungarian E-Administration. *Juridical Current* 21: 63–80.
- Viñarás-Abad, Mónica, Leopoldo Abad-Alcalá, Carmen Llorente-Barroso, María Sánchez-Valle, and Marilé Pretel-Jiménez. 2017. E-Administration and the e-inclusion of the elderly. *Revista Latina de Comunicacion Social* 72: 197–219. [CrossRef]
- Waller, Matthew A., and Sanjay Ahire. 1996. Management perception of the link between product quality and customers' view of product quality. *International Journal of Operations and Production Management* 16: 23–33. [CrossRef]
- Werenowska, Agnieszka. 2018. Elektroniczna platforma usług administracji publicznej jako forma kontaktu z interesariuszami. *Research Papers of the Wroclaw University of Economics* 527: 312–19. [CrossRef]
- Williams, Carrie. 2011. Research Methods. *Journal of Business & Economics Research (JBER)* 5: 65–72. [CrossRef]
- Wolniak, Radosław, Bożena Skotnicka-Zasadzień, and Michał Zasadzień. 2019. Problems of the Functioning of E-Administration in the Silesian Region of Poland from the Perspective of a Person with Disabilities. *Transylvanian Review of Administrative Sciences* 15: 137–55. [CrossRef]
- Zaccarelli, Laura Menegon, and Arilda Schmidt Godoy. 2010. Perspectivas do uso de diários nas pesquisas em organizações. *Cadernos EBAPE.BR* 8: 550–63. [CrossRef]
- Zajdel, Małgorzata, and Małgorzata Michalcewicz-Kaniowska. 2012. The Use of the Electronic Platform of Public Administration Services and Its Free Tools Provided by the Public Administration in the Kujawy-Pomorze Province. *Studia i Materiały Polskiego Stowarzyszenia Zarządzania Wiedzą* 61: 136–49.
- Ziomba, Ewa, Tomasz Papaj, and Danuta Descours. 2014. Assessing the quality of e-government portals—The Polish experience. Paper presented at the 2014 Federated Conference on Computer Science and Information Systems ACSIS, Warsaw, Poland, September 7–10; vol. 2, pp. 1259–67. [CrossRef]



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