Expectations and Mindsets Related To GDPR

Pauliina Hirvonen
University of Jyväskylä, Finland
pauliina.a.hirvonen@student.jyu.fi

Abstract: The aim of this qualitative case study is to examine the initial expectations and assumptions related to General Data Protection Regulation (GDPR) of the European Union from the perspectives of selected Finnish organizations: what were the initial expectations of GDPR, how were they adapted/refined over time, and what was the impact on organizational planning and resourcing. There are no precise earlier studies on the subject. The research question was: What were the organizations' initial expectations of GDPR - and how have they affected the efforts made? GDPR can be described as an input that forms images, preconceptions and views among other things, through various active and passive communication flows. As the empirical results indicate GDPR has been a legal issue, mainly due to the inadequate and unspecific active, official, communication flows. As a result, organizations have experienced difficulties to scale the necessary GDPR efforts. The results of this research can benefit both privacy and information security managers and personnel responsible for aligning policies and practices, and to evaluate organization-specific actions on GDPR compliance. The results can support regulators and authorities in the future GDPR and other policy work and provide ideas for service providers.

Keywords: GDPR early stage issues, Legal Issues, privacy development, privacy regulation, GDPR expectations, GDPR and organizations

1. Introduction

General Data Protection Regulation (GDPR) early stage issues were examined in this article. The aim of this case study was to examine the initial expectations and assumptions related to GDPR from the perspectives of selected Finnish organizations. The research question was: What were the organizations' initial expectations of GDPR - and how have they affected the efforts made?

The keywords of the research are shortly defined here. GDPR early stage issues refer to the time when first official guidance on GDPR requirements appeared available. The study will then focus on the challenges that rose in connection with GDPR during the so-called preparation period, 2016 - 5/2018. Legal issues refer to the general nature of GDPR and the study seeks to explain why GDPR is generally perceived as a challenging legal problem. Referring to its role in privacy regulation and development, GDPR was expected to become globally as one of the most significant and comprehensive privacy tools of today. GDPR expectations include, in particular, organizations' perceptions and initial experiences of the forthcoming regulation. GDPR and organizations include the focus on the organizational approach and awareness.

Understanding the expectations and mindsets is essential, as they affect the quantity and quality of organizations' later GDPR activities. The gap of early work reveals that existing academic research does not include similar approaches to the GDPR issue. The early stage of GDPR can be seen as a kind of igniter in this research which, through various active and passive communication flows, forms images, expectations and views.

As the empirical results indicate, the experiences of Finnish organizations confirm that GDPR has been a real legal issue, as the quality of activity regarding formal communication flows in particular has been inadequate and vague. As an outcome, organizations have had challenges sizing GDPR resources. The article is structured as follows: theoretical background is shortly discussed next. The research implementation is presented in the third section. The fourth section includes the analysis. The discussion and conclusions are in the fifth section.

2. Theoretical Background

The aim of the literature review was to create a base and reasoning for further empirical research. Research problems related to integrating the existing literature to GDPR expectations for that conclusions could be made. The research question was: What earlier studies have shown from organizational initial GDPR expectations?

The review was a descriptive (traditional) review, without strict and precise rules and the materials used were extensive. The method was suitable as the phenomenon studied can be described extensively and the properties of the phenomenon can be classified, if necessary (Salminen, 2010). Compared to a systematic review an integrative review provides a broader scope of the existing literature (Evans 2008: 137). According to Whittemore (2008: 149), the perspectives of research material can be more varied and broader than in a

systematic review and summarising the main research material as a basis for the review is possible, due critical appraisal (Birmingham 2000: 33–34).

The review process was implemented paraphrasing by Cooper´s model (1989: 15), including the following phases: research problem setting, data acquisition, evaluation, analysis, and interpretation and presentation of the results. Academic peer-reviewed articles in information security discipline that were published between the years 2016 – 2020 were included in the review. Research material was collected from academic databases and journals, such as Computers & Security, Information and Computer Security, The Journal of Information System Security, Information Security Journal (A Global Perspective), Association for Computing Machinery Digital Library (ACM) and Institute of Electrical and Electronics Engineers and Institution of Engineering and Technology (IEEE) Xplore Digital Library. After the assessment, the articles that had no connection to GDPR were eliminated.

Results showed that GDPR had generally inspired writers and researchers both in academia and practice. Hundreds of scientific articles had been published under different disciplines, through several different academic publishing channels with varying themes, qualities and methods. The material reflected the approaches of law and legislation, health care/(bio-) medicine, banking, security and privacy, business and economy, information systems/technology and socio, showing that many academic disciplines were taken into concern.

Very few articles had even indirectly examined the research topics from an information system or information security perspective. Based on the analysis, the existing research could generally be divided for two by its chronological order: time before GDPR was enforced (before 25.5.2018); and time after GDPR officially was enforced (25.5.2018 and after). Several studies were designed to interpret either GDPR as a phenomenon, specific GDPR requirements, or offer solutions to specific challenges. Existing studies were mainly implemented so that the research dilemma was narrowly observed, highlighting that the early work did not enlighten GDPR theme in its wide meaning. Also practical relevance and quality were typically limited. As an example, some of these articles did not have comprehensive methodological groundings, missed the analysing method or did not explain the composition of the research material. Overall, the early work included lots of academic shortcomings.

It can be concluded that there is a gap of precisely understanding GDPR expectations and those impacts on organizations. Even though the focus of these studies was not in the expectations of GDPR, the side notes revealed the most important finding: GDPR guidance was felt as inappropriate, consuming and unclear. Regulation was seen just as unclear for researchers and practitioners both before and after GDPR turned into the force. This message occurred in most of the works. The amount of the articles aiming to increase transparency of the unclear content of the regulation remained high despite the timing.

The research question was: What does early work know of organizational early stage GDPR expectations? Existing literature knew a little of the organizational initial expectations. Early work lacked information system and security discipline approaches, academic quality, content and reasoning, wide perspectives, proper definitions and most of all, research on precisely on this topic, was missing. Based on the findings of the next best articles, the following hypothesis could be built: Organizations' expectations and perceptions of GDPR's requirements were unclear and varied due to confusing and inadequate official guidance and communication. Empirical and concrete experiences are required for future work to supplement the hypothesis so that a sufficiently comprehensive image can be created of what the effects these expectations have had.

3. Principles of implementing empirical research

The principles and rationale for implementation are discussed in this section, including presenting shortly a qualitative research process and methods, quality aspects and the framework of the study. Case study method was selected, as the focus of this research was on human interpretations and attributed meanings (Walsham, 1995). The aim was to examine the initial expectations and assumptions related to GDPR from the perspectives of selected Finnish organizations: what were their initial expectations regarding GDPR, how were they adapted/refined over time and what were the impacts on organizational planning and resourcing. The answer for the research question and the relevancy of the hypothesis were constructed through ten interview questions, presented in the section 4, and exploring the data during the whole process.

Case study followed the process presented below in the figure 1, and the model has been modified from Yin´s (2009), including six interconnected phases. The differences to Yin (2009, p. 1), were this process combined the planning and designing phases, because of the need for decreasing the delay between these phases. Reporting was added as a new and separate phase to underline its active role in the process ensuring that experiences gained there will be considered in planning and designing. The third difference was that all phases have a direct connection to the design and planning phase, so interferences and experiences of each phase were documented and considered in subsequent rounds.

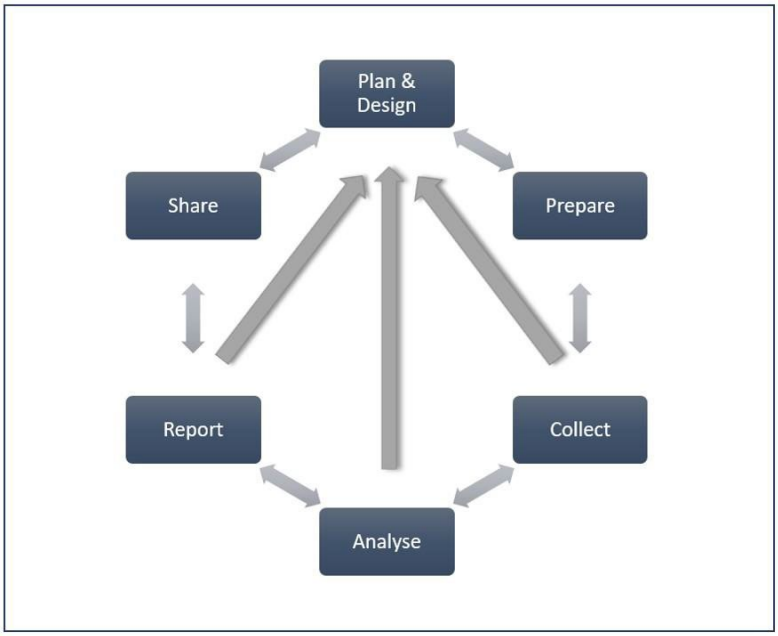

Figure 1: The case study process modified from (Yin, 2009, p. 1)

Target group included eight large or medium-sized Finnish organizations either originating from or located in Jyväskylä. Organizations varied by their background, industries, branches and culture. The titles of the participants varied from coordinator, experts, manager, officer, chef to director. All participants represented the excellence of GDPR matters of their own organization and were the people in practical charge of GDPR. The roles covered e.g. the following functions: law, HR, quality, privacy/data protection/info security, logistics or environment. The names and details of the organizations and participants were anonymized for ethical and privacy reasons. The results were then pooled for analysis. Research data from participants was collected by semi-structured thematic interviews regarding ten research areas. The same open-ended questions were asked from all interviewees, but the order varied if the interviewees themselves naturally moved on to the following questions. This was done to allow them to share experiences as freely as possible. The interviews were recorded. The participants reviewed transcribed interviews and, if necessary, supplemented them.

Eriksson and Koistinen (2014) argued that any analysing methods, or different methods at the same time, can be used in case study research. Research data was analysed using an explanation building technique supplemented with an iterative data enrichment concept and cross-case comparisons. Data from several cases were cross-compared in analysis and analysis is made while collecting data. Explanation building, according to Yin (2009), is a pattern matching aiming to analyse the research data by building an explanation of the case. The General Accounting Office (1990) emphasised the observe, think, test, and revise (OTTR) concept for case study data collection and analysis. Researchers should assess the meanings of information continuously, so that data enrichment needs, in order to confirm existing or create alternative interpretations, could be considered as the process progresses (GAO, 1990). Causality would be achieved through the internal consistency and plausibility of explanation (GAO, 1990), and Miles and Huberman (1984) defined the word ´explaining´ as a process of building a set of causal reasonings for how or why things progressed as they did. The research framework is presented in figure 2. It consists of the research question, the hypothesis built in the literature review, the target group and the 10 interview questions.

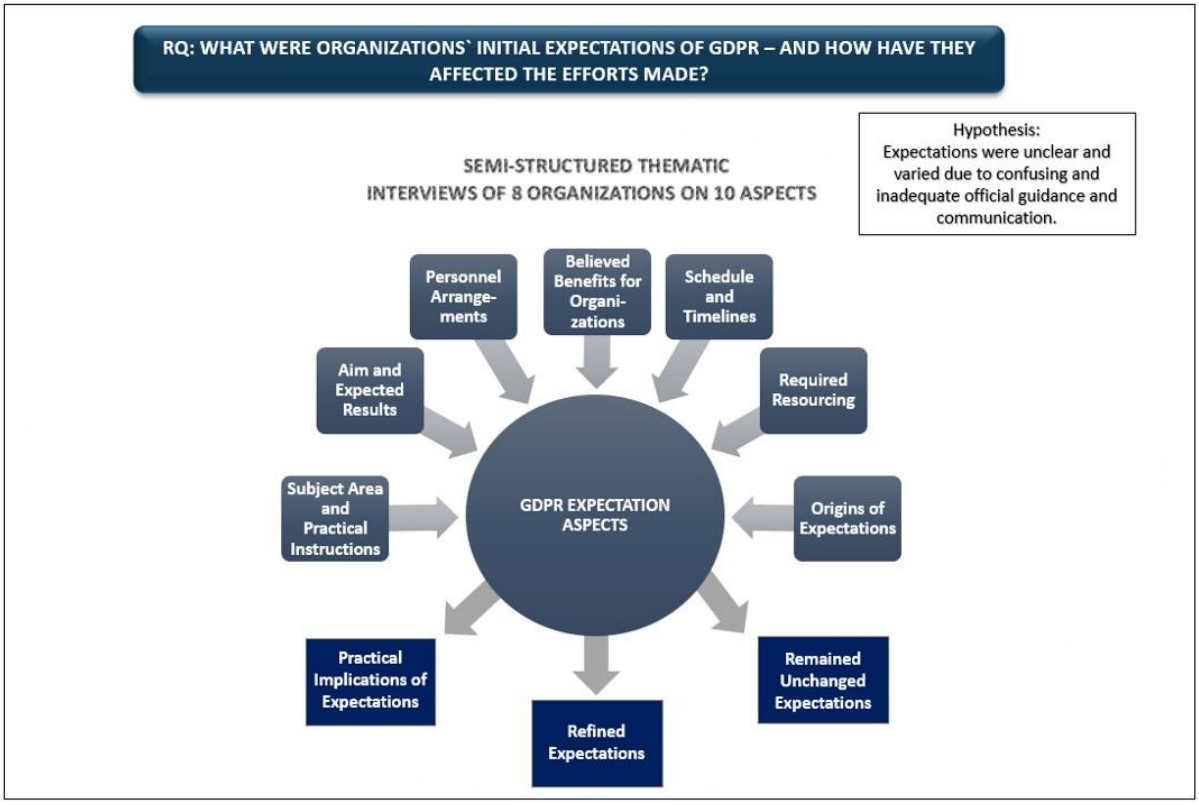

Figure 2: Research framework

The quality of the empirical work consists of (internal, construct & external) validity and reliability (Edmonds & Kennedy, 2012). Internal validity of this work was confirmed by using multiple data sources, which, according to Yin (1984) is an important way to implement a triangulation of case study. Denzin argued (1989: 236–37) that triangulation can occur with data, investigators, theories, and even methodologies. For ensuring construct validity, among multiple source usage Yin (2009) proposed reviewing key informants in the report and documenting clearly and fairly evidence of research, so that reviewers would be able to track initial research questions from conclusions (Sarker & Lee, 1998). GAO´s (1990) guidance of using triangulation in methodology and data source (including cross-case comparisons) was applied to increase internal validity (GAO, 1990). External validity embraces generalisability of the findings to other cases (Tellis, 1997), but unambiguous methodological guidance of achieving it is commonly missing (Halkier, 2011). The external validity is addressed by selecting a sufficiently large research population to allow comparability. Reliability was achieved by documenting and implementing a case study protocol carefully, including e.g. an overview of the project, case study questions, field procedures and applying guidance for addressing descriptive or explanatory questions as its narrative format (Yin, 1994, p. 64).

4. Analysis

The research question was faced by looking at 10 research aspects (Table 1) empirically with certain questions. The analysis of the results and the findings to these aspects are discussed here question by question and the research implementation analysis follows that. Through aspects 1 - 7, the initial expectations were examined. Looking at aspects 8 - 10, the effects of expectations were identified.

The first question addressed the organization's expectations of GDPR and its guidance. In practice, the preparations could be divided into first (2016 - 5/2018) and second (6/2018 - 2019) period. Finding reliable and usable information in the information management process, as well as using GDPR as a sign of responsibility, were seen as essential. Among other things, the general lack of guidance, the lack of interpretation of the text of the regulation, the open issues of liability, the emphasis on sanctions and the oversupply of consultants made the regulation initially very vague, difficult to understand, complex and confusing. Formal communication was a negative threat, as well as too impractical and abstract. Therefore, even before the end of the transition period, GPDR was seen as a mandatory evil with risk factors. The invisibility of the Finnish Office of the Data Protection Ombudsman (ODPO) opened the door for consultants, and the number was large, and knowledge of the content

of GDPR was variable and in many respects´ poor. Service providers also lacked the required organization-specific knowledge. The selection criteria for useful partners were e.g. reliability and competence and were wanted to be involved throughout the process. It can be concluded that the formal guidelines should have sought to be more concrete than on levels 1 and 2, as well as to clarify the benefits and possibilities of the Regulation. Certification or training of consultants would also have facilitated their use. Expectations are likely to affect how organizations prepare and attitude, and how realistically the role and amount of activity is assessed. It is possible that preparatory efforts and resources were wasted if these expectations differ significantly from those of the legislators. If the will of the authorities is vaguely expressed, it is also possible that the original requirement is not met.

Table 1: Research aspects and questions

RESEARCH ASPECTS	RELATING RESEARCH QUESTIONS
1. Subject Area and Practical Instructions	What were the initial expectations of GDPR and its official guidance?
2. Aim and Expected Results	Describe the initial rendering of GDPR´s expected goal and outcome.
3. Personnel Arrangements	How many people in your organization work for GDPR at some level? How were the persons in charge of GDPR identified and defined?
4. Believed Benefits for Organizations	Describe the initial expectations of the usefulness of GDPR for your organization.
5. Schedule and Timelines	Describe the initial expectations of GDPR-related schedules.
6. Required Resourcing	Describe the initial estimations of the GDPR-related investment / resources required from your organization.
7. Origins of the Expectations	Where the expectations came from and what they were based on?
8. Practical Implications of Expectations	What role did the initial expectations have for concrete design and implementation?
9. Refined Expectations	Describe how the expectations have become more precise over time. What have been the changes, in particular, that were not in line with the initial expectations?
10. Remained Unchanged Expectations	What expectations have been met as expected?

The second issue addressed GDPR's aim and expected results. The results revealed three perspectives: the strengthening of individuals´ rights, the business potential of GDPR, and the factors that employ or limit. The goals and outcomes were not clear to everyone, which was connected to inadequate official communication. The communication was initially unsuccessful, as it was not able to demonstrate clearly the benefits and added value of GDPR, compared to the old regulation. Second, the negative tone was emphasised in the initial communication with emphasis on sanctions, which caused fear and frustration. Clear expectations affect how an organization invests in an issue, how it prioritises doing so, and how individuals engage in it. It is estimated that the perceptions will guide the mental and concrete preparation of organizations for ongoing GDPR activities.

The third question addressed the internal personnel and organizational arrangements that have met GDPR's challenges. Actors outside the organization were excluded from the review. The results suggest that the interpretation of GDPR expectations have had a significant impact on the allocation of GDPR responsibilities by organizations. In addition, staffing practices varied significantly between organizations, pending on the industry, business, size, stage of operation and financial success, organizational arrangements, management models, human resources and expertise. In addition, due to the nature of the organizations' activities, the amount and sensitivity of the personal data processed varied significantly. It can be concluded that existing data protection and security practices were affected. Consequently, the solution required varied significantly. A few of the answers revealed that in addition to the actual, there were challenges in performing the data protection task, e.g. adequacy of time, workload and status (whether authority is sufficient). Organizations also felt that data protection affected the external layers of the organization, for example as service providers or partners. The participants did not reveal the practice of involving these third parties, sometimes very significantly involved in the organisation's activities, as members of the data protection organization, if necessary. GDPR matters were still dealt with mainly by third parties. From the responses, it can be concluded that the industry and the nature of the activities of the organization play a role in whether GDPR is a more one-off or continuous process.

The fourth question explored the potential benefits of GDPR for organizations. The benefits expected were as difficult to identify as the overall objectives of GDPR and the expected results. Believed benefits for organizations were threefold: uselessness, minimum requirement & necessity, and opportunity. GDPR is not automatically perceived as useful to organizations. With regard to usability, the existing legislation, the lack of a formal justification for information and the poor financial measurability of data protection were highlighted. Critical or negative attitudes can also potentially slow down the take-up of activities and reduce staff commitment in organizations. GDPR as a minimum requirement could be related to the risk management process, or the avoidance of sanctions. While maintaining GDPR minimum requirement, it is possible that the implementation of privacy investment proposals become challenging. In terms of opportunities, the values of data and responsibility were mentioned as intangible assets and the development of information management with the help of law.

The fifth question concerned the adequacy timetables. It was seen that there was time to prepare, but in practice many left the action close to the deadline and in the end there was a rush. The lack of formal ready-made practices and solutions also made it difficult to implement the requirements in time, as it was not possible to interpret the workload of the activities, or to measure the time required for implementation. It was mentioned that in December, none of the interviewees indicated that there was too much time or that all was done. It emerged that the operating environment outside the organizations was not yet ready for the regulation at the end of 2017.

The sixth issue anticipated the resources required by GDPR. The main required resourcing concerned the personnel and others were money and time. Although organizations had expectations of GDPR, it was felt challenging to evaluate and plan for accurate resources, and views have only strengthened and refined over time. The quality of resources was easier to assess than the quantity. A project was set up for GDPR, which in many organizations has since been transformed into a continuous process, making GDPR a permanent part of the organisation's operations. Some found the start-up clearly easier which had to do with human resources as well as adequate legal expertise. Those who did not have enough of the former relied on consultants. Consultants were used in particular to assess the workload and time required, to support the identification of responsibilities and tasks of those in charge, and to tailor implementation to the needs of the organization. The large number and varying quality of the consultants posed challenges in assessing the qualifications of the consultants.

The seventh question identified the sources from which GDPR expectations arose. The answers created a picture of the information channels, different actors involved in the process, the nature of the information and the impact on the organizations. Origins of the Expectations were primary sources (ODPO and EU-level GDPR authorities) as well as secondary sources (including consultants and other stakeholders) that communicated, edited, and interpreted information from the primary source to organizations. The different data protection and security maturities of the organizations as well as human resources influenced the choice of the source of the information and whether the information was interpreted by themselves or with the help of consultants. The invisibility of the EU and the national authority created a widespread need for the use of consultants.

The eighth question examined the practical GDPR implications for organizations, as they have made significant efforts to meet GDPR requirements. Practical implications of expectations were that organizations were able to initiate GDPR activities but could not accurately quantify the amount of resources required, could make interpretations incorrectly, could arise unnecessary input, or waiting for guidance caused a delay in implementation. This caused frustration and could internally question GDPR accountants within organizations because they lacked the capacity to put things into practice effectively and independently. These factors also had a potential impact on other operations and businesses, as GDPR affected the organization as a whole.

The ninth question mapped how GDPR expectations changed and evolved during the initiation process. GDPR was perceived as more demanding than estimated. The changed expectations were e.g. monitoring the implementation of the regulation and imposing sanctions, organizations being left alone in the transition phase, the organisation's own interpretation activity, the ongoing monitoring of legal issues and the importance of internal policies in handling the regulation, practical implementation challenges (personal data mapping, Refined expectations stemmed from delayed and inadequate official guidance and communication, which many felt was invisible for the first 18 months. Clarifications and lawsuits from the authorities had been long awaited and the solutions obtained were perceived as complex (e.g. if personal data were processed abroad). It was also

mentioned that the EU lacked an official that would provide clear guidance on how individual organizations should operate.

The tenth question mirrored expectations in retrospect, and the answers show what facts and images were retained in organizations throughout the GDPR process. The question clarified views on the relevance and implications of interpretations related to GDPR requirements. The remaining expectations that had not changed were mainly related to organizational needs to seize initiative and actively interpret the regulations, to bring about a constant change in the nature of GDPR, to emphasise the importance of documentation and to guide GDPR through the process.

Overall, the observations from the 10 areas provided a comprehensive overview of the topic. GDPR meant challenges, additional work, minimum obligations and also opportunities. Especially in the beginning, it put pressure on organizations and they felt left alone. The initial communication was unsuccessful due to lack of clarity on the benefits and added value of GDPR and the concrete meaning of the content. The negative tone highlighted in the communication caused fear and frustration. In addition to the lack of clarity on formal guidance on the purpose, expected impact and outcomes of GDPR, it was not clear how much resources were expected from organizations. The responses provided an insight on how the guidance and communication supported organizations in identifying the necessary preparations and resources. The interpretation of GDPR expectations has had a significant impact on GDPR activities implemented by organizations in all areas. In addition to identifying expectations, the responses provided an overview of the organization-specific factors that influence the structure of organizations 'expectations. The responses also revealed how the expectations impacted the organizations.

Due to the descriptive literature review, the broad level understanding of findings and gaps of it was achieved. The modified iterative case study process, sample and framework were functional, as the desired scope and thoroughness were achieved. Through the interviews, diverse and detailed information on the research topic was obtained. Based on the feedback and responses, the questions and semi-structured thematic interviews were functional. Interviewees had the opportunity to check and correct the transcripts, thus ensuring the integrity of the information and the correct understanding between the researcher and the interviewer. The quality of a case study is generally challenging to ensure, but here the quality factors were considered as reported in section 3. During data collection and analysis, interpretations were made by progressively deepening and retrieving triangulation of actual similar research results through deliberately overlapping research questions. Iteratively performed analysis was reasonably comprehensive. However, the analysis was demanding and slow to implement in this way.

5. Discussion and conclusion

The aim of this work was to examine empirically the initial expectations of GDPR from the perspectives of selected Finnish organizations. The research question was: What were the organizations' initial expectations of GDPR - and how have they affected the efforts made? The answer is that GDPR has been a legal issue, mainly due to the inadequate and unspecific active, formal communication flows. It can be concluded from the results that the interpretation of GDPR expectations has had a significant impact on GDPR activities of organizations. Organizations have experienced difficulties in scaling the necessary GDPR efforts. The hypothesis was confirmed in the empirical study. The research question was examined using ten aspects and sub-research questions. An analysis provided a comprehensive overview of the phenomenon, as well as answers as to why and how causality occurred. The key expectations of the organizations, the factors that influenced the expectations and the effects of the expectations were comprehensively listed in the analysis of the results.

The key finding is the importance of interpretation of legal requirements in detail at the earliest possible stage of the process to influence the success of subsequent decisions and investments taking into account the specific organizational traits and requirements. Poor, untimely and incomplete communication can lead to wasted investment, hinder initiating activities and reduce personnel's willingness to commit. Empirical findings suggest that the initial phase of GDPR was easier, if data protection and security, an understanding of legal issues, adequate human resources, and a strong knowledge of the organization were already in place. These factors were likely to support the planning and implementation of GDPR activities, reduce delays, friction and pressure.

Detailed analysis can benefit both privacy and information security managers and responsible persons to align policies and practices, and to evaluate organization-specific actions on GDPR compliance. The results can support regulators and authorities in the future GDPR and other policy work and provide ideas for service providers. The organizations themselves, as well as the governing bodies, should be able to consider the factors identified in this study, which varies from organization to organization, and regulates the ability to receive guidance. In addition, it would likely be beneficial to create concrete instructions for different levels, step-by-step example plans and e.g. quality certification of consultants. Implementing procedures like this in the future can be challenging based on organizations 'negative experiences with GDPR if urgent fixes are implemented. The results contradict official GDPR expectations at an early stage, although over time, officials will likely seek to develop policies based on feedback and experience.

5.1 Restrictions and future study

The limitations of the study are related to the generalizability of the results. Objectivity and quality could also have been refined more precisely, which is typical when using a case study method. The data collection for the literature review ended in 2020, and several qualified studies have been published after that, the results of which had to be excluded from this work due to time resources. Because the interviews yielded significant amounts of research findings, it is clear that the findings in the results needed to be significantly condensed to fit into the article. In this case, there is a risk that something essential was excluded.

In later studies, the topic could be addressed by a broader sampling and by means other than the case study method. Since 2020, implementation studies have been published in various countries, they could be compiled to gain a broader understanding of the subject. Comparative studies could be carried out abroad, including in non-EU countries. In addition, the issues of beneficial use of consults when implementing actions such as GDPR, considering organizational needs when drafting guidelines for regulations and engaging organization's external parts as part of the organization's data protection team could also be examined.

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