KNOWLEDGE, FLAWLESSNESS AND FAILURES IN PROCESSING OF PUBLIC PROCUREMENT DOCUMENTS AT THE STATE ADMINISTRATION

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Abstract

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The objective of this paper is to generate insights into the process of establishing examination of failures in additional documents of specifications of public tenders using archival data. The study is conducted in the public sector procurement practice of public sector organizations – organizational units in the Czech Republic. Overall, the study adds a piece to the mosaic of preparation of public procurement specifications and additional documents arranged in line with the guidance of public procurement in years 2007–2010. The data set contained failures in specifications and additional documents processed in fifteen organizational units. The key research question is, if the failures developed in processing specifications and additional documents depend on obligatory guidance used in observed years. According to the findings this expectation has not been rejected (α = 0.05). The other expectation, saying that in observed years failures appear in 5% of processed documents, has been rejected (α = 0.05).

public sector, public procurement, knowledge, failures

Public sector procurement practice is a subject of research from various academic and practice perspectives. There is an increasing interest in the procurement's effectiveness, economy, and expediency, positive or negative effects of public procurement on public and private sector or contemporary trends and development of functions of public sector procurement within knowledge. Knowledge being an important resource always requires good management (Holsapple and Joshi, 2001). Knowledge is crucial for efficiency, innovation, the quality of goods and services and equity in public procurement (OECD, 2003). Uvarra and Flanagan (2010) define public procurement as the acquisition of goods and services by public sector. Public sector procurement practice is regarded as the foundation of several research areas such as public sector organization structure, organizational learning, public procurement public procurement management, or project approach etc. Brammer and Walker (2011) emphasize sustainability of public sector procurement practice and in addition highlight the main barriers to engagement with procurement. Wheatley (2006) discusses limited access and sharing of information and knowledge, emphasizes that organizational members lack the capability to solve problems. Organizations of public sector have been viewed as strongly conservative, mainly concerning application of traditional Weber's organizational structure (Weber, 1946) and prevailing operational management (Truneček, 2004; Veber et al., 2009). This straightforward characteristic is determined by the procedures and prescriptions based on the law and internal rules. Administrative processes in public sector organizations are based on complex of operations, formal control instruments, and administrative supervision of written guidance. Transfer of information in organization is connected members of an organization. The problem is that they do not commonly share information among groups. This is important e.g. for understanding 276 N. Pomazalová

barriers to innovation activities and creation of knowledge in the public procurement. In this regard, organizations need to apply intercoordination and coordination of activities and resource capacities for progress and development of public procurement organization. On the other side, Kaul (1997) stresses flexibility and effectiveness under a high deregulation and competition in the public sector and public services.

In this regard, public sector organizations arrange implementation of appropriate strategies and management. OECD (2003) completes the management agenda of majority of central government organisations based on knowledge management. Knowledge management understands as a management priority. The goal is to improve knowledge management practices at the central government. OECD anticipates less traditional tools such as quality groups of practices, and central knowledge management units. In this regard, OECD emphasises collaboration in the elaboration and implementation of policies and in the coordination of activities with other organisations. Knowledge management arrangement has been implemented into public sector organization to achieve better knowledge development without limitation based on the morphology of organizational structure (e.g. Mintzberg, 1979, 1990; Krogh, Ichijo, Nonaka, 2000), frequency and intensity of interactions. The problems of the implementation of the new ways for public purchasing are recognised and analysed in different public procurement literature discussing the public procurement process and managing information etc. (Vaidyanathan and Devaraj, 2008). However, if it is not managed by the specific mechanism, which supports information and knowledge platoon, the positive effect may decrease.

This article deals with the public procurement practice theme, using revised failures in specifications and additional documents (generally documents) of the public sector processed by fifteen organizational units in observed years 2007–2010. The outline of this paper is as follows. First, methods and definitions are given. Then, the knowledge supports for processing of public procurement documents are described. Finally, the managerial implications for processing document improvement are discussed.

MATERIAL AND METHODS

First, fifteen organizational units of defence sector with purchasing practices (co-organized with pilot project of outsourcing catering) were selected. Specifications and additional documents were processed by guidance (Czech Republic MoD, 2009). Guidance and traditional knowledge sharing tools for groups of practices are available to processing public procurement at all organizational levels. Guidance protects correct processing of documents. Because of classification the study was based on analysis of secondary data. Data were collected

throughout the observed years 2007–2010. The sample of fifteen documents included documents prepared in line with the guidance in observed years. At the operational level of organizational units existence of failures in processing of documents has been recognized. The 42 failures in documents were analyzed. Variables are, in this case, nominal; frequencies may be cross-tabulated by each category within each variable.

Mládková (2004) highlighted that formalized knowledge helps organization to reduce costs (savings of recycling). Formalized knowledge creates opportunities for recombination of knowledge and achieving synergy. Codified knowledge is relatively easy to store, it is easier to control its quality and improve or strengthen organizational learning. The formalized knowledge according to frequent repetition is not characterized by sensitivity to changes in the environment of the MoD. In this regard, they require the support of personal strategy of the organization (Mládková, 2004) to strengthen expert knowledge of employees and tacit knowledge. The guidance itself contains a set of codified knowledge for the work of professional employees of the public sector organizations. The starting point is the strategy of knowledge management in the organization based on linking employees with formalized knowledge. The relationship between the worker and binding document in the public sector organizations is institutionalized (OECD, 2003). Employees are trained for both working with documents and making use of information and communication technologies. However, even if indirectly, all organizations need to manage the tacit knowledge too. With increasing quantity of codified knowledge in each organization, the risk of flooding this knowledge increases. Based on some theoretical approaches null hypothesis is formulated H_o(1): Failures of documents depend on obligatory guidance in observed years. Alternative hypothesis (1) $H_1(1)$: $H_1(1) \neq H_0(1)$.

In case of methodology, knowledge management tools are embedded for modelling the empirical/observed frequency and theoretical/expected frequency of failures in the documents. Non-parametric Chi-squared (χ^2) Test for independence in combinatory table has been used in this study, test criterion $G \geq \chi^2_{1-0.05}$, number of degrees of freedom v = (r-1)(s-1); level of significance $\alpha = 0.05$ (Sachs and Hedderich, 2009).

Overall, government and public sector organization use the bureaucratic model. Wheatley (2006) claimed that in the bureaucratic model everything is under control. He also discussed information flows and processes in organization. Therefore it is expected that failures will be revised in specifications and additional documents. For this study, following hypothesis is set. It is expected, that the guidance, represented by a methodological apparatus, should contribute to the acceleration of work, increased accuracy in the processing of tasks within time limits, and to the elimination of failures.

Therefore, low number of failures (5%) is expected. H_0 (2): In observed years 2007–2010, failures are identified in 5% of processed documents originating in selected 15 organizational units. Alternative hypothesis (2) can be denoted as H_1 (2): H_1 (2) \neq H_0 (2). The hypothesis test of relative frequency has been chosen with the critical field $U \leq -1.96$ and $U \geq 1.96$ (Sachs and Hedderich, 2009).

RESULTS AND DISCUSSION

Descriptive statistics of the sample is presented in the Table I and II. In the sample of failures (n = 42), 12 failures were identified in years 2007 and 2008, 9 failures in years 2009 and 2010. The table below shows the relative and cumulative frequency of failures identified in public procurement documents. From the total number of failures, (Tab. I) 12 failures (28.60%) occurred in years 2007 and 2008 and 9 (21.40%) in years 2009 and 2010. The cumulative frequency in 2007 is 12 (28.60%), in 2008 it doubled to 24 (57.10%), in year 2009 it increased to 33 (78.60%) and the remaining failures were observed in 2010. Mode in year 2007 is 1, 2008 – 3, 2009 – 2 and 2010 – 2.

In all specifications and additional documents categories of failures A – F were revised. Categories of failures were schematically coded as A – failure in commodity, B – failure in date, C – failure in expenditures, D – failure in managerial responsibility, E – failure in formality and F – failure in financial guarantee (Tab. II). From the total number of failures (see Tab. II) 11 (26.20%) were related to problem A, 5 (11.90%) were related to B and C, and 7 (16.70%) were connected to D, E and F. Mode of category coded as A is 2, B – 0, C – 1, D

-1, E-1 and F-1. The deep analysis showed that some data in the documents have been only copied from forms of another organizational unit, or copies were based on no update guidance, meaning an old data. Particular failures in quantity of commodities per day, or absent declaration of public funding for the public procurement were identified. That means a serious deficiency that is reflected in the state budget and extra payment of the final consumer.

Graph 1 shows absolute frequency of failures revised in the years 2007–2010 in specifications and additional documents. In 2007 high frequency of failures in commodity or in date was identified. These failures decreased in 2009 and 2010. Failures in managerial responsibility, in formality and in financial guarantee were the highest in years 2008, 2009 and 2010.

First research area analyses (certain) conditions of the processing of public procurement and role of guidance as codified knowledge needed for processing public procurement. It is supposed that there may be some failures in the processing specifications due to many changes in guidance related to changes in public procurement law and its impact to the institutionalised development of knowledge. The second research area is oriented towards some links between failures and codified knowledge in guidance. Note that guidance is generally understood as the way to protect, share, or improve codified knowledge in organization. The shift from traditional management tools to knowledge management approach is emphasised in regard to findings using the defence sector in the Czech Republic as a case study.

Guidance in organizations of public sector is prepared according to the law, and internal

I: Frequency distribution

Failure in year	Frequency of failure	Relative frequency	Cumulative absolute frequency	Cumulative relative frequency
2007	12	0.286	12	0.286
2008	12	0.286	24	0.571
2009	9	0.214	33	0.786
2010	9	0.214	42	1.000
Sum	42	1.000	×	×

Source: Author

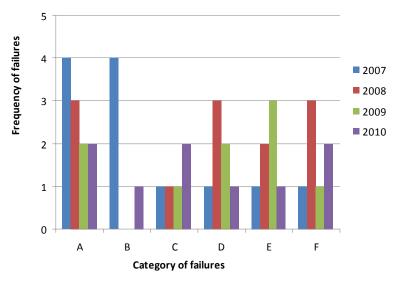
II: Frequency distribution

Category of failure	Frequency of failure	Relative frequency
A	11	0.262
В	5	0.119
С	5	0.119
D	7	0.167
E	7	0.167
F	7	0.167
Sum	42	1.000

Source: Author

rules. They reflect organizational culture and represent complex knowledge approaches organization. Guidance is crucial of each for implementation of pro-activity and making the preconditions for realization of the task in line with required parameters. Guidance is the main tool for knowledge management in the public sector organizations, also in the case of pilot outsourcing project. Guidance is based on the orders, regulations, and instructions. Truneček (2004) considers the rules and regulations to be knowledge mainly in an explicit form for transmission to the vertical

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1: Failures revised in years 2007–2010 Source: Author

III: Guidance in years and revised categories of failures

	Category of failure							
Guidance in year	A	В	С	D	E	F	Σ_{i}	
2007	4	4	1	1	1	1	12	
2008	3	0	1	3	2	3	12	
2009	2	0	1	2	3	1	9	
2010	2	1	2	1	1	2	9	
Σ_{i}	11	5	5	7	7	7	42	

Source: Author

line of the organization. Truneček (dtto) concludes that the ownership of information and knowledge in such organizational structure symbolizes power, but this negatively affects the dissemination of knowledge. It also points to an essential characteristic of knowledge transfer from lower to upper levels within the organizational hierarchy, where knowledge depends on preferences based on the organizational hierarchy.

The analysis of the failures of the documents should provide answer, if these are dependent on obligatory guidance in observed years. For this purpose nonparametric X^2 -Test of independency in contingency table (Table III) has been chosen in this study. Calculation of the Chi-Square statistic is basically a comparison between observed and expected frequencies for each position in the matrix. For processing of the documents different guidance based on internal acts and legislature novels were used in observed years.

According to the result of the χ^2 Test of independency in combinatory matrix the test criterion G=7.7 for failures of documents was stated. The critical value for $\chi^2_{0.95,\,\nu=15}=27.6$. According to the findings it is not possible to reject H_0 (1) saying that the failures of documents depend on obligatory guidance in observed years at established level of

significance = 5%. The information and knowledge base of individual employees and the knowledge for using formalised guidelines or preparation of specifications seems to be crucial for achieving the success of this process. On the other side, tolerance to failures has a positive effect on knowledge culture of the organization, but on the other side knowledge, incompetence exists (Truneček, 2004). Knowledge incompetence is related to lack of experience, hence knowledge, terminology, low level of interaction etc. These facts, among others, can detect the problem of lacking information link between the manager and subordinates.

To test the second hypothesis test of relative frequency has been used, critical field $U \le -1.96$ and $U \ge 1.96$. The test criterion was U = 13.39 for years 2007 and 2008 and U = 9.82 for years 2009 and 2010. $H_0(2)$ was rejected at level of significance = 5%.

According to the findings, it can be noted that documents were correct. The result suggests that the 40% of specifications (total 70, cases of failures – 42 and faultlessness – 28) refer to a sufficient amount of explicit and tacit knowledge of the professional staff and responsible managers of organizational units.

This also implies the existence of such ties and links between knowledge, users of knowledge and management of units that support the transfer and sharing of very specific knowledge in relation to the achieving the pilot project goal. Ajmal and Koskinen (2008) emphasized the need to create an organizational design and culture, which is tolerant to existence of failures while keeping certain degree of autonomy, especially in terms of time planning. Preparation of documents in a broader sense, like in case of outsourcing of catering, can be understood as a project (Bresnen, Goussevskaia and Swan, 2004; Newell et al., 2006). Lindner and Wald (2010) claimed that in the organization that uses a project management, cultural factors play critical role. They say that there is a direct impact on the effectiveness of project management factors, namely culture supporting knowledge, knowledge management, tolerance of failures and informal networks that enable the realization of informal support. For success of the project-based knowledge management, the way of governance from the top level of organization structure is crucial.

MANAGERIAL IMPLICATIONS

Knowledge incompetence reduces performance and efficiency of organization and increases control activity. According to the guidance, documents with failures go back to the organizational units for correction. Therefore, it is necessary to extend the preparation phase period related to completion of documents. This fact also affects other organizational units, which have submitted the documents in accordance with guidance. The acquisition process cannot begin without completing all public procurement documents.

Guidance represents a set of information and according to Mľádková (2004) can be understood as a set of codified explicit knowledge. The guidance represents a norm of knowledge and provides base for implementation of standardized workflow. Creative approach may help establish the standard on one side, or initiate activities leading to increasing production of new knowledge (explicit, implicit and tacit), but de facto these guidelines limit the creativity that even in some respects is not desirable. Conversion of knowledge is done through the combination and internalization (Nonaka 1994, Nonaka and Takeuchi, 1998). Knowledge organization tools are components of knowledge, creating patterns and principles (Im and Hars, 1998) based on managerial incentives for achieving objectification and faster decision making. Organization is therefore motivated for proactive platform improvement that has been reflected in organizational management and the reflection of its internal and external environment. To achieve this, employees need to interact with the information dynamically. However, also efficient creation, sharing, and dissemination of knowledge are crucial for the organization. Managers support such an ideal knowledge management processes and organizational mechanisms and instruments to prevent the possibility of disintegration of information and knowledge. In this context, it shows the organization's support of goals on one side and on the other side expectations in the conditions of organizational culture. Along with the implementation of knowledge management change is being done in organizational culture. Management of the organization is responsible creating a supportive environment for barrier-free communication in management and implementation of project management. It is also responsible for ensuring sufficient resources that can strengthen communication through sharing of common benefits that will ensure participation in knowledge sharing practices and finally learning from experience (Bresnen, Goussevskaia and Swan, 2004; Newell et al., 2006).

Concerning pro-activity and achieving better knowledge, officeholders are provided with exante meetings emphasising the understanding of the vision and goal of the pilot project, the organizational and economic parameters shaping the ongoing transformation process of the public sector. The aim of the meetings is to create conditions and assumptions in the internal environment of the project for implementation of a new procurement procedure, or for a new pilot project based on reliability, speed, flexibility and quality, and their internalization. Initial meetings are aimed at coordinating the activities of the competent managers of organizational units, processing, and submission public procurement documents in accordance with guidance as an internal regulation, to understand the acquisition process, goal of outsourcing catering and ensure its improvement on the part of responsible bodies at the level of organizational units. Meetings are also provided ex-ante and are based on findings, experiences, and support improving knowledge platform. In general, the main attention of the meetings is concentrated on clarifying the strategy of pilot project establishment, the establishment of project approach in preparing documents for public procurement, to internalize the project management culture and rules of the pilot project before implementation of new approaches of knowledge management within the organization. On the other side, it has to be clarified that the situation is de facto based on the knowledge strategy of the MoD. The knowledge management is focused on working with explicit knowledge and knowledge is in the MoD based on the codification knowledge strategy (Mládková, 2004). Knowledge, their production, conversion and sharing are crucial for changes in the organizational morphology of the MoD in conditions of creating specifications of public procurement and the pilot project of outsourcing catering.

Employees of the organizational units use (in order to perform specification), relatively large amount of data and information and therefore explicit knowledge are managed. Since some tasks are repeated many times, or have different variations

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and modifications and are highly formalized, the problem is in public sector organization. Management eliminated on knowledge-basis "producing of already produced". For all activities related to the processing of the specifications and all related activities within the specification, a uniformity of procedure is required according to guidance. The aim of the coordination of activities is stabilization process on one hand, and on the other hand, the concentration of information and knowledge. Guidance is a methodology, which is a fully binding procedure for the processing, transmission and evaluation of specifications in accordance with applicable laws and regulations, internal rules and documents expert management of the public sector, which is essential for the unification of service requests.

According to OECD (2003) suggestion of implementation knowledge management to central government it is possible to note, that in the case of public procurement it seems to be crucial to use knowledge management methods and instruments for faultlessness processing of public procurement documents. The new methodology allows the use of the variant structure of the model components. Formalization of organizational knowledge-based solutions for communities contributes to solving the problem. This contributes to reduction of requirements for monitoring the results of work activities. Communities represent the organizational solution that can be applied in an organizational structure that is built up on the principle of pyramidal arrangement. In this regard, public sector organization uses evidence-based learning and strategic alignment and learns from their policies and actions and adapts according to these lessons learnt e.g. the case of defence sector.

CONCLUSION

Knowledge management is aimed on the perspective how classic management tools can improve organisational internalisation of knowledge. A typical problem of hierarchical organizational structures is knowledge sharing, which is generated during work on public procurement projects and of course preparation of tender documents.

Current management of public sector organizations is based on the transposition of the relations of domination, but also on dependence in the organization. Coordination of activities intensifies networking of employees on the one hand; on the other hand, the interdependence of individuals within the traditional pyramidal organizational structure is created. The passive behaviour of the organization based on its functional concept determining behaviour and organizational performance refines approaches based on pro-activity.

According to the findings the null hypothesis H_o (1) saying that the failures of documents depend on obligatory guidance in observed years at established level of significance = 5% is not rejected. The hypothesis H₀ (2) stating that in years 2007-2010, failures appear in 5% of processed documents originating in selected 15 organizational units, was rejected at level of significance of = 5%. In this regard knowledge management strategy, methods and tools seem to be needed in public procurement, especially in the case of processing public procurement documents. Guidance as codified knowledge and traditional managerial tool can support faultlessness in processed documents, but development of knowledge management seems to be opportunity for new strategies of public sector organizations in the case of public procurement.

SUMMARY

The purpose of conducted study is to contribute to the analysis of failures during the development of specifications and additional documents (summary documents) of the public procurement. Its objective is focused on assessment of failures in public procurement documents. The study concentrates on the issue of failures of documents for pilot projects of catering in 2007–2010. The sample of failures was (n = 42). Documents were prepared in observed years in line with the guidance as obligatory guidelines for processing, transmission and assessment specifications for procurement of centrally funded expenditure at fifteen organizational units of the public sector organizations in the Czech Republic.

The key research question is, if the failures in documents depend on obligatory guidance used in the years 2007–2010 and it is not rejected. The other research question is, if failures are identified in 5% of processed documents originating in selected 15 organizational units in observed years.

There is rather extensive debate on changing traditional management knowledge tools according to OECD (2003) approach. The shift towards knowledge management approach in the case of processing public procurement documents is emphasised in this regard and evidence-based learning and strategic alignment too. Consequently, the topic of public procurement in public sector organizations is crucial for intra-organizational and inter-organizational success, emphasis on interactive features of processing documents and managerial active approach towards the sharing knowledge and development of more proactive knowledge platform.

REFERENCES

- AJMAL, M. M. and KOSKINEN, K. U., 2008: Knowledge transfer in project-based organizations: an organizational culture perspective. *Project Management Journal* 39;(1), pp. 7–15.
- BRAMMER, S., WALKER, H., 2011: Sustainable procurement in the public sector: an international comparative study. *International Journal of Operations & Production Management*. Vol. 31, No. 4, pp. 452–476
- BRESNEN, M., GOUSSEVSKAIA, A. and SWAN, J., 2004: Embedding new management knowledge in project-based organizations. Organization Studies, Vol. 25, No. 9, pp. 1535–1555.
- CZECH REPUBLIC MoD, 2009: Metodické pokyny ke zpracování specifikace (souhrnné specifikace) veřejné zakázky resortu Ministerstva obrany pro oblast centrálně hrazených výdajů. Praha: Ministerstvo obrany, 33 p.
- HOLSAPPLE, C. W. and SINGH, M., 2001: The knowledge chain model: activities for competitiveness. *Expert Systems with Applications*. 20, pp. 77–98.
- IM, I. and HARS, A. 1998: Knowledge Reuse Insights from Software Reuse, *Proceedings of the Americas Conference of AIS*, pp. 601–603.
- KAUL, M., 1997: The new public administration: management innovations in government. *Public Administration and Development* 17, pp. 13–26.
- KROGH, V. G., ICHIJO, K. and NONAKA, I., 2000: Enabling Knowledge Creation. Oxford University Press, New York – Oxford. ISBN 0-19-512616-5.
- LINDNER, F. and WALD, A., 2010: Success factors of knowledge management in temporary organizations. *International Journal of Project Management*, In: Press, Corrected Proof, Available online at http://www.sciencedirect.com/science on 22 October 2010.
- MINTZBERG, H., 1979: The Structuring of Organisations. New York, Prentice Hall, Hemel Hempstead/Englewood Cliffs,
- MINTZBERG, H., 1990: The design school: reconsidering the basic premises of strategic management. *Engineering Management Review*, Vol. 19, No. 3, pp. 85–112.
- MLÁDKOVÁ, L., 2004: Management znalostí v praxi. Praha: Professional publishing, 155 s. ISBN 8086419517.
- NEWELL, S., BRESNEN, M., EDELMAN, L., SCABROUGH, H. and SWAN, J., 2006: Sharing Knowledge Across Project. *Management Learning*, Vol. 37, No. 2, pp. 167–185.

- NONAKA, I., 1994: A dynamic theory of organizational knowledge creation. *Organization Science*, Vol. 5, No. 1, pp. 14–37.
- NONAKA, I. and TAKEUCHI, H., 1995: *The Knowledge Creating Company*. Oxford University Press, New York Oxford. ISBN 0-19-509269-4.
- NONAKA, I. and TAKEUCHI, H. A., 1997: New Organizational Structure. *Knowledge in Organisations*, pp. 99–133.
- OECD, 2003: The Learning Government: Introduction and Draft Results of the Survey of Knowledge Management Practices in Ministries/Departments/Agencies of Central Government. In: 27th Session of the Public Management Committee, 3–4 April 2003. Paris: Château de la Muette.
- RITTER, T. and GEMÜNDEN, H. G., 2004: The impact of a company's business strategy on its technological competence, network competence and innovation success. *Journal of Business Research*. 57, pp. 548–556.
- SACHS, L. and HEDDERICH, J., 2009: Angewandte Statistik. Heidelberg: Springer. 813 p. ISBN 978-3-540-88901-4.
- TRUNEČEK, J., 2004: *Management znalostí*. Praha: C.H. Beck, 131 s. ISBN 8071798843.
- UYARRA, E., FLANAGAN, K., 2010: Understanding the innovation impacts of public procurement. *European Planning Studies*. Vol. 18, No. 1, pp. 123–143
- VEBER, J. a kol., 2009: Management Základy moderní manažerské přístupy výkonnost a prosperita. Olympus C&S spol. s r. o., 736 s. ISBN 978-80-7261-200-0.
- WEBER, M., 1946: *From MaxWeber: Essays in sociology.* GERTH, H. H. and MILLS, W. C. (eds. and trns.) New York: Oxford University Press.
- WHEATHLEY, M. J., 2006: Leadership and the new science: Discovering order in a chaotic world. San Francisco, CA: Berrett-Koehler Publishers.
- WILLEM, A. and BUELENS, M., 2007: Knowledge sharing in public sector organizations: The effect of organizational characteristics on interdepartmental knowledge sharing. Journal of Public Administration Research and Theory, 17(4), 581–606.
- WILSON, J., 1989: Bureaucracy: What government agencies do and why they do it. New York: Basic Books, Inc.
- YANG, T. M. and MAXWELL, T. A., 2011: Information-sharing in public organizations: A literature review of interpersonal, intraorganizational and inter-organizational success factors. *Government Information Quarterly*, Volume 28, Issue 2, pp. 164–175.

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