Bureaucratic Rigidity, Risk Aversion and Knowledge Generation and Utilization in the Public Sector: Reality or Illusion?

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Abstract

Management scholars and practitioners contend that Knowledge generation and Utilization enables organizations to remain competitive. In the public sector, knowledge generation and utilization is seen as leveraging public service delivery. This is because of its potential to enhance effective public policy, problem solving and problem prevention. Amidst this realization, it is evident that the public sector still grapples with challenges of bureaucratic rigidities and risk aversion. This paper set out to conceptually examine how the public sector can circumvent the vivid bureaucratic rigidities and the risk aversion culture so as to harness optimally benefits of knowledge generation and utilization.

Keywords: bureaucratic, rigidity, risk, aversion, knowledge, generation, utilization

1. Introduction

Management scholars and practitioners maintain that knowledge generation and utilization (KU) enables organizations to remain competitive (Matusik & Hill, 1998; Garicano & Hubbard, 2004; Deng & Poole, 2011; Garicano & Rossi-Hansberg, 2015). In the public sector, knowledge is seen as leveraging public service delivery. This is because of its potential to enhance effective public policy, problem solving and problem prevention. Amidst this realization, it is evident that the public sector still grapples with bureaucratic rigidities and risk aversion challenges. It is not clear how knowledge generation and utilization on one side and bureaucratic rigidities and risk aversion on the other can co-exist side by side. If the co-existence is practically impossible, then how can the devil be dealt with or circumvented so as to harness optimally the benefits of knowledge generation and utilization?

2. Knowledge Generation and Utilization in the Public Sector

The basis of sustainable competitive advantage in any organization stems from its capabilities such as value, rareness, inimitability and organization (Matthews & Shulman, 2005). Knowledge as a crucial capability must be generated before it is disseminated for utilization. Indeed, scholars such as Ordoñez & Serrat (2009) and Olubunmi (2015) have argued that the generation of knowledge lies at the heart of modern organizations. But what does knowledge generation entail? How does it relate to utilization? Most studies on knowledge generation agree that it is concerned with development of usable knowledge relevant and valuable to the organization (Jarrar, et al, 2010) and Gray, Sharland, et al, (2014). One other point of convergence in the literature is that employees are at the centre of knowledge generation (Baloh, Desouza & Paquette, 2011).

Although it is not clear from the literature as to what kind of environment and incentives employees need in order to be able to generate knowledge, the role played by employees in knowledge generation and utilization is fundamental. Employees think creatively, observe things, talk to one another and can remember or recall events without having to be prompted. Employees prepare information and become its custodian as well as its users in future. As such, employees have always positioned themselves as central in the context of knowledge generation and utilization. Only when knowledge is generated can the utilization become possible.

Some studies have revealed that organizational knowledge generation occurs throughout the daily activities. According to Olubunmi (2015), the generation of such knowledge occurs in dynamic forms such as formal training

or talking with people who share similar interests and reading information or data in organizational records. Unfortunately Olubunmi (2015) under-estimates the dynamic and well-structured processes for organizational knowledge generation and lacks an illustrative model. A model detailing processes in terms of giving employees freedom to think creatively, availing employees break time and the establishment of hubs where employees meet informally for chatting and sharing knowledge as well as capturing employee knowledge at all times would be useful. While developing such a model is beyond the scope of this paper, and being cognizant of Olubunmi's (2015) conceptualization, this discussion borrows Nonaka's (1994) model of organizational knowledge generation. The model illustrates the process through which tacit and explicit knowledge is generated in organizations. The process is constituted by four modes namely; Socialization, Externalization, Internalization and combination. Knowledge is created when all four modes of knowledge generation are managed to form a continual cycle as indicated below.

The Organizational Knowledge Generation Model

	Tacit Knowledge to	*Explicit Knowledge*
Tacit Knowledge	Socialization	Externalization
From Explicit Knowledge	Internalization	Combination

Adopted from Nonaka, I. (1994).

The modal above shows that knowledge is generated when tacit knowledge is converted into explicit knowledge through a process Nonaka (1994) terms as socialization in which case such knowledge is made external (externalization). In the same vein, Nonaka claims that during internalization knowledge is generated when explicit knowledge is embodied into tacit knowledge and through combination, explicit knowledge is converted into more complex and systematic sets of explicit knowledge. Understanding the conversion model is crucial for the public sector as it ignites administrative units to create mechanisms for an effective generation of both tacit and explicit knowledge.

Nonaka (1994) contends that the prime mover in the process of organizational knowledge generation is the individual (also see Agbim &Idris (2015). Individuals accumulate tacit knowledge through direct hands-on experience. Thus, knowledge generation centers on the building and exchange between tacit and explicit knowledge through the four modes. The socialization mode usually starts with the building of a team or field of interaction. The mode facilitates the sharing of members' experiences and perspectives. In support of this Cong & Pandya (2003) found out that one's knowledge is combined with the knowledge of others to generate new knowledge through socialization.

Externalization mode is triggered by successive rounds of meaningful dialogue. In this dialogue, the sophisticated use of metaphors also known as symbols or images plays an important role. These symbols or images are used to enable team members to articulate their own perspectives, thereby reveal hidden tacit knowledge that is otherwise hard to communicate. The combination mode is facilitated by such triggers as coordination between team members and other sections of the organization and the documentation of existing knowledge. Through an iterative process of trial and error, concepts are articulated and developed until they emerge in a concrete form. This experimentation can trigger internalization through learning by doing. There is as yet little if any, scientific studies on organizational knowledge generation in the context of public service. Nonaka's (1994) model was based on the private sector yet it has potential for use in the public sector. There is need to know how the public sector has positioned team work and information flows in order to facilitate generation and utilization of knowledge.

Nonaka's model gives a clear understanding of how tacit and explicit knowledge is generated in organizations. The four modes of socialization, externalization, combination and internalization are useful constructs in concretizing this understanding. There are however some questions not answered by the model. Such questions relate to the nature of organizational environment affecting organizational knowledge generation and the kind of deliberate actions organizational members in the public sector should focus on in order to guarantee sustainability of knowledge

creation. Other issues of concern in respect of the model relate to storage mechanisms of organizational knowledge and the easiness with which such knowledge can be accessed. In this regard therefore, Nonaka's model is not a 'one size fits all'. Knowledge generation may not imply automatic utilization. What should be the storage mechanisms of such knowledge? Some scholars have attempted these questions. For example, Matthews & Shulman (2005) argue that organizations that have a culture of building long-term relationships both within among its members, a commitment to sharing the rewards of collective achievement, cooperation and a high but unstructured degree of informality create sustainable and useful knowledge. This argument though feasible in the context of the private sector is yet to be supported by empirical studies in the public sector.

Relatedly, before knowledge is utilized there is need for knowledge mapping. A study by Jarrar, Zairi & Schiuma (2010) revealed that although much of the knowledge people require to solve problems already exists within an organization, it is not readily available when needed. This implies that knowledge generation does not necessarily lead to automatic dissemination and utilization. Potential users in the public sector may not be aware of the existence of such knowledge (Riege & Lindsay, 2006). Such knowledge however, can be mapped using deliberate efforts. But when we talk of knowledge mapping, what exactly do we mean?

Previous studies on knowledge mapping have conceptualized knowledge mapping or knowledge audit as the process of identifying knowledge assets within the organization and defining ways of accessing them (Jarrar, Zairi & Schiuma, 2010; Soulejman, 2016). Although knowledge mapping is not the main subject of this paper, some aspects of it such as how some employees identify and locate colleagues with needed knowledge in the public sector amidst bureaucratic and risk aversion hiccups deserve mention. Knowledge mapping especially for the explicit knowledge is usually supported by knowledge storing technologies that make knowledge either available on demand or enable employees to locate it and show how it can be acquired (Jarrar, Zairi & Schiuma, 2010). Knowledge mapping asks questions such as; who knows what, how to access them, and what they do with it (Leonardi, 2011; Canary & McPhee, 2011). The methods used in knowledge mapping include online surveys, focus group discussions, and stakeholder interviews. These methods lead to an output showing who owns the desired knowledge, how it was created, where it is located and how it flows among employees and other key stakeholders for utilization (Cong & Pandya, 2003).

Literature has not clearly indicated how knowledge mapping is undertaken in the public sector. Issues related to the usage of knowledge storing technologies as well as mapping methods seem to be rather scanty in the available studies. Researchers such as Baguma, Ragsdell & Murray, (2014) conducted an empirical study on the employees' responsibilities in the Knowledge retention strategy in a Ugandan public institution and found that there were inadequate deliberate efforts to conduct knowledge mapping in the sector. If there are inadequate efforts to conduct knowledge mapping in the sector, it would follow that efforts to conduct knowledge generation are as well inadequate or non-existent since the two are either concomitant or follow one another.

More often than not, arguments raised in relation to knowledge mapping in the public sector seem to be guided by rhetoric rather than reality. In most cases when knowledge mapping takes place, the assumption is that such knowledge will be accessed for utilization. But in the public sector the situation is rather different and disgusting. There are cases where employees hoard what they know especially when they are not sure how sharing their knowledge asset will translate into rewards. In cases where peers are viewed as competitors and treated with suspicion, in cases where the acceptance of the knowledge asset largely depends on the seniority of the source, where junior officers are considered as knowledge seekers rather than possessors of such asset, knowledge mapping is likely to yield minimal results.

But the fundamental question to address here is what role does the bureaucratic rigidities apparent in the public sector play in respect of knowledge generation? The discussion below will shed more light.

3. Bureaucratic Rigidities and Knowledge Generation and Utilization in the Public Sector

Bureaucratic rigidities are entrenched in the public sector processes. Researchers and practitioners in the public sector have indicated that the sector globally relies heavily on formalized processes, such as the paper and rule based processes as well as vertical decision making (Roy, 2013). The processes have been greatly associated with bureaucracy and found to enhance stability and predictability within the public sector (Jeston & Nelis, *et al,* 2008). Literature further shows that the objective of processes is to make public sector organizations more effective by creating order, smooth operations and reducing costs (Wirtz & Daiser, 2015). This is enabled by constantly analyzing

the quality of public sector business processes with the help of verification tools (Van der Aalst, Hofstede & Weske, 2003; Rosemann & Brocke, 2010). But when we talk of bureaucratic rigidities, what exactly do we mean?

i) There is not only strict rule following but also such rules are restrictive. Anything not provided for in the rules should be avoided as much as possible. Yet creativity, innovation and knowledge generation are not rule bound.

ii) Most interactions are formal. You meet your boss on appointment to discuss a pre-determined agenda within an agreed time. There is no time for informal but important interactions.

iii) Talking about mistakes in the public sector is a taboo. Whoever has never done anything wrong should be the first to cast stone. As such, talking about mistakes is not seen as an avenue for a learning opportunity but rather an attempt to put a colleague into trouble. Let mistakes be discovered by an outsider at worst but not from a workmate.

iv) In many cases the top management in public sector is authoritarian and dictatorial to the extent that the best option in meetings is to agree with the superior's position and any degree of disagreement in opinion whether perceived or real may be used against you during appraisals. Yet, in such meetings knowledge is generated and disseminated for utilization.

v) Most public sector institutions lack a clear agenda as well as core values to the extent that both new and old employees have no clear picture of what the core values and mandate is. Such mandate and values are rarely made reference to except having them incorporated in the annual reports for the external stakeholders' consumption.

vi) Communication and idea sharing is restricted to the people you report to within your layer of hierarchy. Even then knowledge flows one way. The perception is that the higher the position the more the knowledge and vice-versa. The wrong perception is that employees in the lower ladders in the hierarchy have little or no knowledge to generate and offer.

Bureaucratic routines constitute the most common and enduring elements of processes in the public sector (Osborne & Gaebler, 1990). As such, it has been accused of strict rules and regulations as well as steep structures (Mai, 2016), over-standardization and over-specialization (Bertrand, Burgess, Chawla & Xu, 2016; Olsen, 2007). Scholars have indicated that the generation and utilization of intangible assets such as organizational knowledge in fostering public sector innovation has met difficulties because of these bureaucratic rigidities (Daglio, Gerson, & Kitchen, 2015). Whereas in most cases this claim is taken on face value, there is another set of scholars who claim that most governments running on the rails of the private sector have been successful in many respects. Such scholars include Osborne and Gaebler (1990) and Hood (1992). This set of scholars have not indicated how bureaucratic rigidities were controlled so as to create flexibility in the sector.

One persistent missing link in the previous research is how various public sectors across the globe have neutralized challenges of bureaucratic rigidities to enhance knowledge generation and utilization for better performance. Even where various accusations have been labelled against bureaucracy such as red tape (Belcher, 2015), associated with excessive and unproductive processes in the public sector (Belcher, 2015; Ritchie, 2014; Roy, 2013), literature seem to remain silent on how such red tape inhibits the generation and utilization of organizational knowledge more so in the public sector. As previously indicated, there are other management approaches that have been adopted in the public sector with a view to running the public sector in the similar way the private sector is managed. This has been deliberately done hoping that bureaucratic routines can be removed. Such approaches include New Public Management (NPM) (Hood, 1990), and Public Value Management (Roy, 2013; Weinberg, 2017). Even then, these and other management approaches have not succeeded in removing bureaucratic routines. Secondly, these scholars have not given reference to the generation and utilization of knowledge in the public sector. Failure to tag counter-bureaucratic management approaches to knowledge generation and utilization in the public sector leaves two facts; namely, the traditional bureaucracy remains surviving alongside rival management approaches. Secondly, all the approaches are silent on how they can foster knowledge generation and utilization in the public sector.

Studies have indicated that strict rules are associated with bureaucratic routines. A recent study conducted by Weinberg (2017) indicated that rules were very useful in creating order, stability and predictability in the public sector. The study did not link strict rule following to knowledge generation and utilization. We would have expected the study to shed light on how the good side of strict rule following is related to knowledge generation and utilization in the public sector. What is apparent is that strict rule following is entrenched in every decision making aspect in the public sector. There is evidence to the effect that public sector managers have consistently over-emphasized strict

rule following in which case almost every decision must be made in conformance with certain rules. There are strict rules for instance on recruitment, promotion, disciplinary actions, resource allocation and accountability, decision making, information flow and communication, working hours, strict break time etc. Usually in the public sector, if rules are silent on a matter being considered, such a matter may be abandoned even if it was intended to produce benefits for the public sector organization. Thus, the practice of strict rule following has not kept pace with empirical studies in the same filed. There is research about the bad side of strict rule following. According to Olsen (2007) strict rule following suffocates creative thinking and innovation. Strict rule following has potential to inhibit the culture of risk taking by making public sector workers docile, with no power and courage to question the status quo (Ritchie, 2014).

Researchers have indicated that knowledge generation and utilization thrives in an environment where workers interact freely to share ideas and take risks (Wiig, 2000; Mai, 2016). Literature further shows that workers should be able to develop and test the practicality of ideas which may not necessarily be in conformity with the existing rules and statutes. Much as the literature lacks an empirical analysis of how strict rule following impends knowledge utilization, it is noted from the foregoing discussion, that strict rule following may not create an environment favourable for knowledge utilization within the public sector. For example, Nonaka's (1994) model of knowledge conversion characterized by socialization, externalization, internalization and combination may not align well with strict rule following.

4. Risk Aversion and Knowledge Generation and Utilization in the Public Sector

This section presents an examination of the link between risk aversion and knowledge generation and utilization in the public sector. From the context of public service delivery, if the public sector is unable to take risks then it will likely deliver substandard or below average services. In other words, failure to take risks becomes the biggest risk in itself. Yet, there is evidence to suggest that the public sector might be experiencing risk aversion as indicated below;

i) Performance management is restricted to the duties and responsibilities. Any output not provided for in the employment contract my pass unnoticed.

ii) Employees are programmed in a routinized environment to the extent you perform that activity you are directed to perform in the prescribed manner. The environment is hostile to creative thinking.

iii) There are strict disciplinary procedures entrenched in both institutional and legal provisions.

iv) There are no clear criteria for measuring success. Performance output should align with the organizational procedural or legal provisions. Useful activities may be halted if there are no well written procedures for guiding employees in the circumstances.

The body of literature on risk aversion in the public sector shows that whereas there is need for innovation and creativity to enhance efficiency and effectiveness in the sector, the culture of risk aversion makes innovation and creativity difficult (Karyotakis & Moustakis, 2016; Flemig, Osborne & Kinder, 2016; Ritchie, 2014). It is further indicated that risk aversion is strongly entrenched in the public sector processes (Chang & Lin, 2015). The literature is yet to link risk aversion to knowledge generation and utilization. However, innovation and creativity are products of knowledge utilization (Davenport & Prusak, 1998; Wiig, 2000). Therefore, it can be inferred from the literature that the culture of risk aversion can potentially hinder knowledge generation and utilization in the public sector.

Some of the key questions of great concern in regard to risk aversion in the public sector relate to the perception of risk and failure. In other words, how does the public sector view risk and failure? Evidence reveals that risk and failure are perceived as intolerable in the sector (Flemig, Osborne & Kinder, 2016). The intolerance of failure implies that taking risk may be punishable in the public sector. But then if there is little room for risk taking and failure (Bourgon, 2017; Feeney & DeHart-Davis, 2009; Karyotakis & Moustakis, 2016), we expect public sector managers to have no clear substantial criteria for success (Ritchie, 2014; Olsen, 2007) since in most cases, success comes with or after failure.

Some researchers have attributed the persistent culture of risk aversion to organizational size and maturity (Bozeman & Kingsley, 1998), and absence of public regulatory agencies to deal with balancing risks and innovation approaches (OECD, 2017; Flemig, Osborne & Kinder, 2016; Osborne & Flynn, 1997). Much as it is important to pay attention to organizational size and risk management approaches, it may be more important to link these interventions to knowledge generation and utilization if the public sector is to be competitive in meeting customer needs.

Unfortunately, the previous studies have somehow ignored this important direction of linking all risk management interventions to knowledge generation and utilization.

5. Implications for the Management Researchers and Practitioners

From the foregoing discussion, one can tell that bureaucratic rigidities and risk aversion inhibit knowledge generation and utilization in the public sector. On this basis, some scholars have advised that the public sector should move away from the traditional bureaucracy that inhibits knowledge generation and utilization and move on to doing business that centres on the client (Wirtz & Daiser, 2015). This advice is somehow similar to the one given by Osborne and Gaebler (1993) in their popular article on reinventing government and Hood's (1990) piece on the New Public Management (NPM) in which the authors called for managing the public sector business on the same trails as the private sector; and designing appropriate knowledge generation and utilization frameworks (McDermott & O'Dell, 2001; BenMoussa; Campos Souza, Castro, Ziviani, Parreiras, 2016). The studies do not draw examples from successful public sectors to satisfactorily show whether the public sector culture of bureaucratic rigidities and risk aversion has been structured to suit the reforms or vice versa. How successful public sectors have dealt with perceptions of mistakes and failure so as to circumvent these inhibitors of knowledge generation and utilization still lacks in the previous studies. In addition, the fact that bureaucratic rigidities and risk aversion have endured enormous criticisms for generations means that any reform towards enhancing knowledge creation and utilization should instead accommodate these inhibitors rather than do away with them.

Besides, the continued empty rhetoric in respect of knowledge generation and utilization in the public sector that has not kept pace with its demand and actual entrenchment into the sector's systems, processes and procedures could indirectly reveal the sector's unwillingness to embrace knowledge management. The public sector should realize that time for talking is over. It is time to start action so as to make use of the knowledge assets in the sector.

Lastly, the negative perception of failure in the sector and lack of clear criteria for measuring success seem to negatively affect knowledge generation and utilization efforts by sustaining the culture of risk aversion among the public sector employees. There is therefore needs to revisit the sector's rules and regulatory frameworks and redesign them to suite the modern times.

6. Conclusion

This paper has examined the apparent tension between bureaucratic rigidities and risk aversion on one hand and knowledge generation and utilization on the other side. The discussion has indicated that whereas there is much rhetoric about knowledge generation and utilization in the public sector, the traditional management practices in the sector characterized by the bureaucratic processes and risk aversion act in concert to stifle the benefits of knowledge generation and utilization. However, these practices though dictated by the institutional procedural and legalistic tendencies have received less criticism from the management scholars and practitioners in spite of their potential to incapacitate much of the effort geared towards knowledge generation and utilization in the public sector. Time has come to restructure the public sector so as to create flexibility in a bid to make knowledge generation and utilization a reality rather than illusion.

References

Agbim, K.C., & Idris, A.J., (2015). Competitive Advantage through Knowledge Dissemination: An Empirical Analysis of Hotels in Makurdi Metropolis, Benue State, Nigeria. *European Journal of Business and Innovation Research, 3*(1), 22-35.

Baguma, S.D., Ragsdell, G., & Murray, I. (2014). Employees' responsibilities in a knowledge retention strategy: a Ugandan case study. IN: Rooney, J. and Murthy, V. (eds.), *Proceedings of the 11th International Conference on Intellectual Capital, Knowledge Management and Organisational Learning* (ICICKM 2014), Sydney, Australia, 6-7- November, pp. 485 - 492.

Baloh, P., Desouza, K. C., & Paquette, S. (2011). The concept of knowledge. In: K. C. Desouza and S. Paquette (Eds.), *Knowledge Management: An Introduction* (pp. 35-71). New York: NY: Neal-Schuman Publishers, Inc.

Belcher (2015). Independent Review of Whole-Of-Government Internal Regulation.

BenMoussa, C. (2009). Barriers to Knowledge Management: A Theoretical Framework and a Review of Industrial

Cases. *World Academy of Science, Engineering and Technology*, *30*, 2009.

Bertrand, M., Burgess, R., Chawla, A., & Xu, G. (2016). The Costs of Bureaucratic Rigidity: Evidence from the Indian Administrative Service.

Bourgon, J. (2017). Re-Thinking Public Innovation. Ethos. *Public Governance International,* Issue 17.

Bozeman, B., & Kingsley, G. (1998), Risk Culture in Public and Private Organizations. *Public Administration Review*, *58*(2), 109–118. https://doi.org/10.2307/976358

Canary, H.E., & McPhee, R.D. (Eds.), (2011). Communication and Organizational Knowledge. Contemporary Issues for Theory and Practice. *Routledge,* New York.

Chang, C.L., & Lin, T.C. (2015). The role of organizational culture in the knowledge management process. *Journal of Knowledge Management, 19*(3), 433-455. https://doi.org/10.1108/JKM-08-2014-0353

Cong, X., & Pandya, K.V. (2003). Issues of Knowledge Management in the Public Sector. *Electronic Journal of Knowledge Management*, *1*(2), 25-33.

Daglio, M., Gerson D., & Kitchen H. (2014). 'Building Organisational Capacity for Public Sector Innovation', Background Paper prepared for the OECD Conference "Innovating the Public Sector: from Ideas to Impact", Paris, 12-13 November 2014.

Davenport, T.H., & Prusak, L., (1998). Working Knowledge: How Organizations Manage What They Know. Ubiquity.

Deng, L., & Poole, M.S. (2011). Knowledge Utilization in Electronic Networks of Practice, in Communication and Organizational Knowledge Contemporary Issues for Theory and Practice. Edited by Heather E. Canary and Robert D. McPhee, *Routledge publishers.* New York and London.

Feeney, M.K., & Dehart-Davis L. (2009). Bureaucracy and Public Employee Behaviour: A Case of Local Government. *Review of Public Personnel Administration, 29*(4), 311-326. https://doi.org/10.1177/0734371X09333201

Flemig, S, Osborne, S., & Kinder, T. (2016). Risky Business—Re-Conceptualizing Risk and Innovation in Public Services. *Public Money & Management, 36*(6), 425-432. https://doi.org/10.1080/09540962.2016.1206751

Garicano L., & Hubbard, T.N. (2004). Hierarchies, Specialization, and the Utilization of Knowledge: Theory and Evidence from the Legal Services Industry. *John M. Olin Law & Economics Working Paper No. 214.* https://doi.org/10.3386/w10432

Garicano, L., & Rossi-Hansberg, E. (2015). Knowledge-Based Hierarchies: Using Organizations to Understand the Economy. *Annu. Rev. Econ., 7,* 1–30. https://doi.org/10.1146/annurev-economics-080614-115748

Gray, M., Sharland, E., Heinsch, M., & Schubert, L. (2014). Connecting research to action: perspectives on research utilization. *British Journal of Social Work*, *45*(7), 1952-1967. https://doi.org/10.1093/bjsw/bcu089

Hood, C. (1992). A Public Management for All Seasons? *Royal Institute of Public Administration, 69*, 3-19. https://doi.org/10.1111/j.1467-9299.1991.tb00779.x

Jarrar, Y.F., Zairi, M., & Schiuma, G. (2010). Defining organizational Knowledge: A best Practice. European Centre for Best Practice and Management. RP-ECBPM/0024.

Karyotakis, K.M., & Moustakis, V.S. (2016). Organizational Factors, Organizational Culture, Job Satisfaction and Entrepreneurial Orientation in Public Administration. *European Journal of Applied Economics, 13*(1), 47-59. https://doi.org/10.5937/ejae13-10781

Leonardi, P.M. (2011), "Information, Technology, and Knowledge Sharing in Global Organizations: Cultural Differences in Perceptions of Where Knowledge Lies", in Canary, H.E., & McPhee, R.D. (Eds.), (2011). Communication and Organizational Knowledge. *Contemporary Issues for Theory and Practice*. Routledge, New York.

Mai, T. (2016). The Power of Bureaucracy. *Journal of Us-China Public Administration, 13*(4), 244-255.

Matthews, J.H., & Shulman, A.D. (2005). Competitive advantage in Public sector organizations:

Matusik, S.F., & Hill, C.W.L., (1998). The Utilization of Contingent Work, Knowledge Creation, and Competitive Advantage. *The Academy of Management Review, 23*(4), 680-697. https://doi.org/10.5465/amr.1998.1255633

McDermott, R., & O'Dell, C., (2001). Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge*

Management, 5(1), 76-85.

Nonaka, I. (1994). A Dynamic Theory of Organizational Knowledge Creation. *Organization Science, 5*(1), 14-37. https://doi.org/10.1287/orsc.5.1.14

OECD (2017). Core Skills for Public Sector Innovation. A Beta model of skills to promote And Enable Innovation in Public Sector Organisations. https://doi.org/10.1787/9789264273283-4-en

Olsen, J.P. (2007). The Ups And Downs of Bureaucratic Organization. Working Paper

Olubunmi, O.F. (2015), "Knowledge Management as an important tool in Organisational Management: A Review of Literature", *Library Philosophy and Practice (e-journal).* Paper 1238.

Ordoñez, M., & Serrat, O. (2009). Disseminating Knowledge Products. Asian Development Bank.

Osborne, S. P., & Flynn, N. (1997), Managing the Innovative Capacity of Voluntary and Non-Profit Organizations in the Provision of Public Services. *Public Money & Management*, *17*(4), 31–39. https://doi.org/10.1111/1467-9302.00089

Osborne, D., & Gaebler (1993). Reinventing Government. What have you changed that has changed everything else? *Public Productivity and Management Review, 1*(4). https://doi.org/10.2307/3381012

Riege, A., & Lindsay, N. (2006). Knowledge management in the public sector: stakeholder partnerships in the public policy development. *Journal of Knowledge Management. Emerald Group Publishing Limited, 3*(10), 24-39. https://doi.org/10.1108/13673270610670830

Ritchie, F. (2014). Resistance to Change in Government: Risk, Inertia and Incentives. *Economics Working Paper Series* 1412.

Rosemann, M., & Brocke, J.V. (2010). The Six Core Elements of Business Process Management. In: Brocke, J.V., & Rosemann, M. (eds.), *International Handbook on Business Process Management 1 - Introduction, Methods, and Information Systems*. 107–122. Springer, Heidel-berg (2010). https://doi.org/10.1007/978-3-642-00416-2_5

Roy, J. (2013). From Machinery to Mobility: Government and Democracy in a Participative Age. Public Administration and Information Technology. *Springer Science.* https://doi.org/10.1007/978-1-4614-7221-6

Weinberg, J, (2017). Bureaucracy as Violence. 115 Mich. L. Rev. 1097.

Wiig, K.M. (2000). Application of Knowledge Management in Public Administration.

Paper Prepared for Public Administrators of the City of Taipei, Taiwan,

May, 2000. Knowledge Research Institute, Inc.

Wirtz, B.W., & Daiser, P. (2015). E-Government: Strategy Process. Instruments. Information and Communication Management, Germany.