

TOWARDS A SUCCESSFUL CENTRALIZATION OF MUNICIPAL PROCUREMENT: A CASE OF KWAZULU-NATAL PROVINCE

Zwelihle Wiseman Nzuzi, Lawrence Mpele Lekhanya***

Abstract

Centralization of municipal procurement in the KwaZulu-Natal Province is faced with several challenges. There were two aims for this study: to identify factors influencing municipal procurement and to design a model of the factors influencing municipal procurement, in an attempt to improve the understanding of municipal procurement. The proposed model is based on sound theoretical frameworks like knowledge management theory and the application of theory and practice ethics as well as the secondary data. The study found that the biographic factors as well as internal and external factors have strong influences on the success or failure of municipal procurement. The significance of these factors formed the basis for a proposed model and is subject to further experiments by other scholars.

Keywords: Operational Procurement Factors, Procurement Theories

**Department of Financial Accounting, Durban University of Technology, Durban University of Technology, South Africa*

***Department of Public management and Economics, Durban University of Technology, Durban University of Technology, South Africa*

1 Introduction

Worldwide, a municipal procurement has become an issue of public attention and debate, and has been subjected to improvements, restructuring, rules and regulations. This has been a considerable issue for many years and it has also been evident by many scholars. After evidence of the scholars, several developing and developed countries have taken steps to reform their public procurement systems, but the operation is still shrouded in secrecy, inefficiency, exploitation, and undercutting. In all these cases, the government has put huge amounts of resources with a purpose to improve the lives of the society through municipal procurement (Onyinkwa, 2013). In 1978, Corey provided a number of guidelines for procurement decision making. In 2000, Faes, Matthyssens and Vandernbempt as well as and Arnold in 1999 established how to achieve a successful global procurement. In 2005, Tella and Virolainen have identified motives for forming consortium procurement while Nollet and Beaulieu in 2005 have investigated the pros and cons of adopting consortium procurement. Other studies conducted include measurement of theory and practice as well as agency costs of centralization and decentralization of procurement (Karjalained, 2009). With reference to section 217 (1) of the South African Preferential Procurement Policy Framework Act (PPPFA), Act No. 5 of 2000, the primary objective towards procurement reformation was simply to ensure

fairness, equitable, transparency, competitiveness and cost effectiveness in the control of municipal inventories (Watermeyer, 2011). According to Intaher and Johanna (2012), the concept of municipal procurement refers to the acquisition of goods, services and works by a procuring entity using public funds. Apart from the actual buying and selling, the operation of procurement includes inbound logistics which comprises transport, storage and distribution of the goods received. Therefore, it is apparent that the municipalities must consider themselves as profit making organisations that are operating in a competitive market place. This is because, municipalities are also faced with an increased competition, desire for support from key constituencies, desire to increase the size and range of the working station, desire for new technologies, increased calls for accountability, a higher demand for quality by all the stakeholders involved, more responsibility for research, teaching, and greater emphasis on efficiency and effective procurement (Luby, 2013).

According to the Municipality inventory management policy (2005), in terms of the Municipal Finance Management Act (MFMA), Act No. 56 of 2003; which is an official framework for controlling the finances of the municipality, the unauthorized, irregular, and fruitless spending must be prevented through safeguarding all the municipal resources including. Moreover, MFMA framework detects that a task to receive goods and services in the municipality

should be carried out by procurement division in conjunction with the requirements of the Preferential Procurement Policy Framework Act (PPPFA), Act No. 5 of 2000, which governs the control of the municipal purchases. PPPFA illustrates the responsibility of the Chief Finance Officer to appoint in writing the officials to perform the duties of purchases. It also illustrates that the inventories held by the Stores Division are to be sold only to city departments and other government agencies, and currently charge five percent extra as a markup on cost to recover the costs of administering the storerooms (Audit of the central store's inventory, 2009). According to the Municipality inventory management policy (2005), the accounting officer must establish, through operational procedures, an effective system of acquisition management in order to ensure the following:

- That good and services are procured by the municipality or municipal entity in accordance with authorised processes only;
- That expenditure on goods and services is incurred in terms of an approved budget in terms of section 15 of the Act;
- That the threshold values for the different procurement processes are complied with;
- That bid documentation, evaluation and adjudication criteria, and general conditions of a contract, are in accordance with any applicable legislation; and
- That any Treasury guidelines on acquisition, management are properly taken into account.

Apart from many challenges faced by the municipalities on procurement, several authors (Japheth, 2013; Umakanta and Chaitanya, 2012; Bijulal, Venkateswaran and Hemachandra, 2011) state that it is very much important to ensure that the internal controls of the organization work efficiently at the times, i.e., match the quality and quantity of goods and services with the original order form. On the other hand, Intaher and Johanna (2012) revealed that the security aspects play a huge role to ensure a secured receipt of goods and services. Other considerations like matching a delivery note with purchase order and supplier's name and order number, signing a delivery note, preparing goods received note, rejecting incorrect provisions, transferring approved goods to the stores to be stored, and updating inventory records have been also identified as important (Schatteman, 2010). However, the challenges brought along with the development of theoretical frameworks of operational procurement factors are, however, a largely unexplored area in the municipal context. This paper will focus on the development of municipal operational procurement model in order to provide an insight and improve the success of municipal procurement.

2 Aim and objectives

The aim of this study was divided into two phases: to identify factors influencing municipal procurement and to design a model of the factors influencing municipal procurement, in an attempt to improve the understanding of municipal procurement. The choice of knowledge management theory and the theory and practice can be justified by this argument from Hawkins and Muir (2014) according to which future research surrounding knowledge management should offer valuable insights to matters of compliance in public procurement and that implication for theory and practice should be further studied. Municipal procurement factors model to be proposed by this research is expected to be based on sound procurement theoretical frameworks. Therefore the two main objectives of this research are to investigate existing procurement theories, to identify municipal operational procurement factors, and to propose a model for the centralization of municipal procurement with reference to the KwaZulu-Natal Province.

3 Procurement theories

The result of the literature review conducted in this study on procurement theoretical frameworks reveals that there are three procurement theoretical frameworks: the theory of incentives versus transaction costs, theory and practice, theory of knowledge management, and the principal –agent theory. Of these, there are only three theories selected to be used for this study: the theory of incentives and transaction costs, theory and practice, and theory of knowledge management. The selection of these theories was aimed to compare which one of them can best sweets the development of a theoretical framework factors in operational procurement.

3.1 The incentive and transaction cost theory

The incentive and transaction cost theory was proposed by Bajari and Tadelis (2001). According to Ligita and Vytautas (2009), the concept of incentive refers to a benefit that motivates the organization to do better. Transaction cost refers to an effort paid by the organization while initiating the business deals.

3.2 The theory and practice

Theory and practice were proposed by Keith and Rene (2008). According to Pier and Nicola (2010), the concept of theory offers a vast body of analyses and prescriptions which constitute a primary reference for procurement practice. The concept of practice refers to a transposition of theory into practical exercise.

3.3 Knowledge management (KM) theory

The knowledge management theory was proposed by Magnussona *et al.* (2002). According to Koenig (2012), the concept of knowledge management (KM) came into being around the 1990s and can be described as a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of the available information such as; databases, documents, policies, procedures, and previously un-captured the expertise and experience of individual workers. KM has five dimensions: trust, roles, culture, languages, and strategy.

4 Centralized procurement factors

A research conducted by Japheth (2013) found that procurement planning is significant when

implementing new techniques in order to improve performance, but such initiative must be in line with procurement laws. Onyinkwa (2013) and Nonaka and Takeuchi (1995) are in common view that knowledge has seen to be a major factor in operating procurement. Egbu, Vines and Tookey (2003) and Onyinkwa (2013) agree that putting training as a high priority can help to improve quality. A study by Egbu *et al.* (2003) indicates that communication plays a major role in procurement. Karjalained (2009) sharing information can eliminate a number of possible mistakes. Most of the public sectors are striving to find ways of incorporating their goals with corporate strategies. Karjalained, (2009) such goals include reducing costs, improving quality, delivering on time, and increasing productivity (Table 1).

Table 1. Procurement factors

Factors	References
F.1. Planning	Japheth (2013)
F.2. Knowledge	Onyinkwa (2013) and Nonaka and Takeuchi (1995)
F.3. Training	Onyinkwa (2013) and Egbu, Vines and Tookey (2003)
F.4. Information sharing	Karjalained (2009) and Egbu, Vines and Tookey (2003)
F.5. Goal setting	Karjalained (2009)
F.6. Accountability	Bashuna (2013)
F.7. Use of technology	Bashuna (2013)
F.8. Transparency	Panda and Sahu (2012) and Boughzala, Bouzid and Boughzala (2012)
F.9. Processes	Vaidya, Sajeev and Callender (2006)

A study by Bashuna (2013) indicates that accountability has a direct link with compliance and can create opportunities for better performance and service delivery that is expected by the public. According to Bashuna (2013), due to the growing needs of the society most, the public procurements are now taking on the use of new technologies. Boughzala, Bouzid and Boughzala (2012) indicate that trust is one important factor for transparency within procurement. Transparency is made up of four aspects: self-transparency, transparency in technology, transparency in partners, and transparency in the organization (Panda and Sahu, 2012). According to Bashuna (2013) and Predrag and Sladana (2012), a good public procurement service usually has clearly defined processes. Few important processes may include gathering and analysing data, overview of procurement plans for all budgetary beneficiaries, preparing annual procurement plans to be adopted, regular reporting to the relevant assembly on implementation of procurement plans.

5 Research design

5.1 First designs

This study was a census, descriptive, cross-sectional and quantitative in nature. The methodology applied in this study was chosen for the convenience of the respondents.

5.2 Targeted population

The target population selected for investigation was the 110 staff members from a procurement section of the South Africa municipality in the KwaZulu-Natal Province. The researcher targeted this population because of their relevance in financial control.

5.3 Research instrument

A questionnaire was used to collect data from 101 members of staff. Questionnaire comprised a general section in which biographical information was formed and a section dealing with factors influencing procurement. A mix of nominal items in the questionnaire was employed in the biographical section. Apart from the demographics, all variables were measured using a 3 Point-type Likert-scale.

5.4 Data collection and data analysis

The data collection for this study was self-administered. The overall response rate for the survey was high as the achieved response rate was (91.82%). A total of 110 questionnaires were despatched (9 partially completed and 101 fully completed). Therefore, all 9 partial completed questionnaires were discarded resulting in a final sample of 101. Descriptive and inferential statistics were used to analyse the quantitative data in the form of tables. The data analysis was performed using the Statistical Package for Social Sciences (SPSS) version 22.0. The level of significance was set at 95% (p= 0.05). The tables presented were developed from Microsoft Word.

5.5 Reliability and validity

The data analysis was performed using the Statistical Package for Social Sciences (SPSS). Reliability tests performed in this study were conclusive for all the questionnaire items (Cronbach's alpha >0.5). The survey data also fully passed the validity test as all Likert scale items, split into exactly three components. All tests were performed with a confidence level of 0.7, thus concluding that the reliability of the study was acceptable.

5.6 Second design

The second design of the study was in a form of a literature review. Literature was conducted to identify procurement theories and the factors influencing municipal procurement. The researcher then attempted to fit these factors into each procurement theory, and the theory which best fitted the factors was chosen as a proposed model for the centralization of municipal procurement with reference to the KwaZulu-Natal Province.

6 Research results

This section presents the results of this research in terms of the identification of exiting operational procurement theories, and of municipal operational factors. The section ends with the presentation of the factors of the above mentioned factors in the theoretical frameworks mentioned earlier, as the basis for the selection of the most appropriate theoretical frameworks.

6.1 Biographical data

Using frequencies and percentages for data presentation, this section describes the biographic profile of respondents, including education level and experience of 101 respondents. The detailed information is explained as follows.

In a sample of 101 respondents, many of them (65.3%) were males while 34.7% were females. In terms of their qualifications, many of the respondents (86%) were matriculants while 11% had certificates lower than a diploma. 3% were diploma holders and none of them had qualifications higher than a diploma. In respect of the respondents' work experience, majority (51.5%) had 11 years and above which symbolises that most of them are very old and are near to retire (65.3%). Since there are fewer diploma holders and no degree holders, the staff education needs to be improved. Having more old and experienced staff members is an indication to the municipality to start training the younger age groups in order to sustain consistency after retrenchment or retirement of staff. The study further claims that having underqualified staff members with most school level qualifications is a source of the municipal procurement failure (Table 2).

Table 2. Characteristics of research sample

Gender	No	Percent	Experience	No	Percent
Male	66	65.3	0-5yrs	16	15.8
Female	45	34.7	6-10yrs	33	32.7
Total	101	100	11yrs and above	52	51.5
			Total	101	100
Qualification	No	Percent	Age	No	Percent
Matric	87	86	10-20yrs	0	0
Certificate after matric	11	11	21-30yrs	6	6
Diploma	3	3	31-40yrs	13	12.9
Degree	0	0	41-50yrs	16	15.8
Honours	0	0	51yrs above	66	65.3
Masters	0	0	Total	101	100
Doctorate	0	0			
Total	101	100			

6 Factors affecting procurement factors in the municipality

In table 3, statements which represent a mean of close to 1 (Agree) indicate that most of the respondents

agreed with the statements. Statements which represent a mean of close to 2 (Neutral) indicate that most of the respondents were not sure about the statements. A mean of close to 3 (Disagree) indicates a disagreement with the statements.

Table 3. Factors affecting procurement factors in the municipality

Factors	No	Mean	Std. Deviation
Gender	101	2.5614	.84552
Experience	101	1.1404	1.02537
Qualification	101	1.2456	.91184
Age	101	1.1719	1.00188
Planning	101	1.2632	.97333
Knowledge	101	1.37193	1.118314163
Training	101	2.1053	1.06376
Information sharing	101	1.2018	1.13334
Goal setting	101	1.1895	1.06464
Accountability	101	2.6842	1.00282
Use of technology	101	1.0351	0.94425
Transparency	101	2.5965	0.88357
Logistics	101	1.7544	0.80801
Time management	101	1.0175	0.97268
Suppliers	101	1.1316	0.97526
Communication with supplies	101	2.1316	.97526
Legal rules	101	1.2982	1.10138
Practicality of rules	101	1.1719	1.16523
Government influence	101	1.2807	1.08157
Social needs of the society	101	1.2737	1.00188
Demand for better services by internal constituency	101	1.2105	1.03055
Demand for better services by external constituency	101	1.2860	0.95906
Organizational structure	101	1.1404	0.97172
Organizational support	101	1.0789	1.03419
Staff commitment	101	1.1070	1.43226
Competition	101	1.0947	1.01214
Staff appraisal	101	1.0439	1.08677

Note: Question: Indicate whether you 1=agree, 2=neutral, 3=disagree

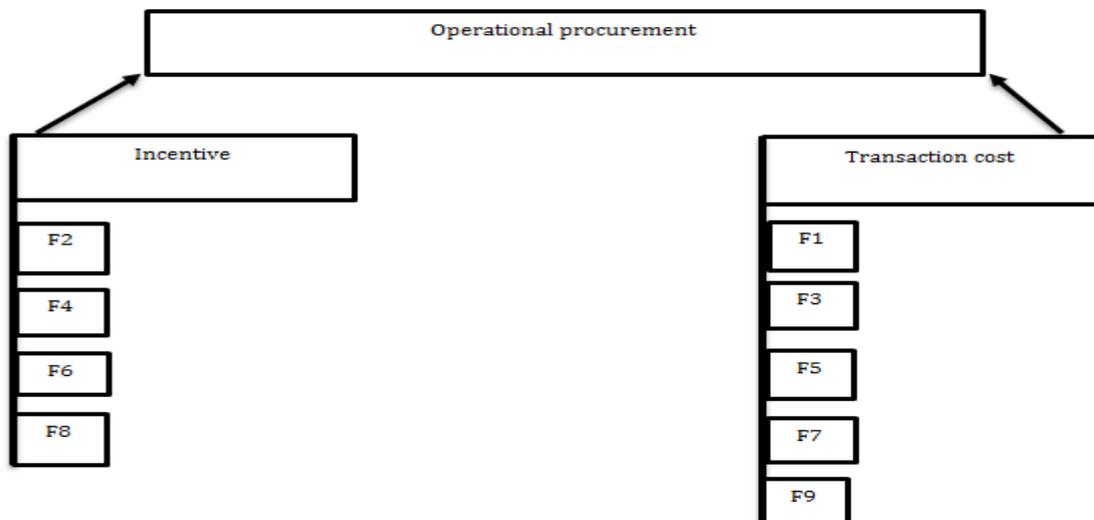
6.1 Matching factors with theories

Matching the factors with theories present how the theories fitted in the operational procurement and knowledge management theoretical frameworks as follows.

7 The incentive and transaction cost theory

The classification of the following incentive and transaction cost procurement factors is questionable (Figure 1).

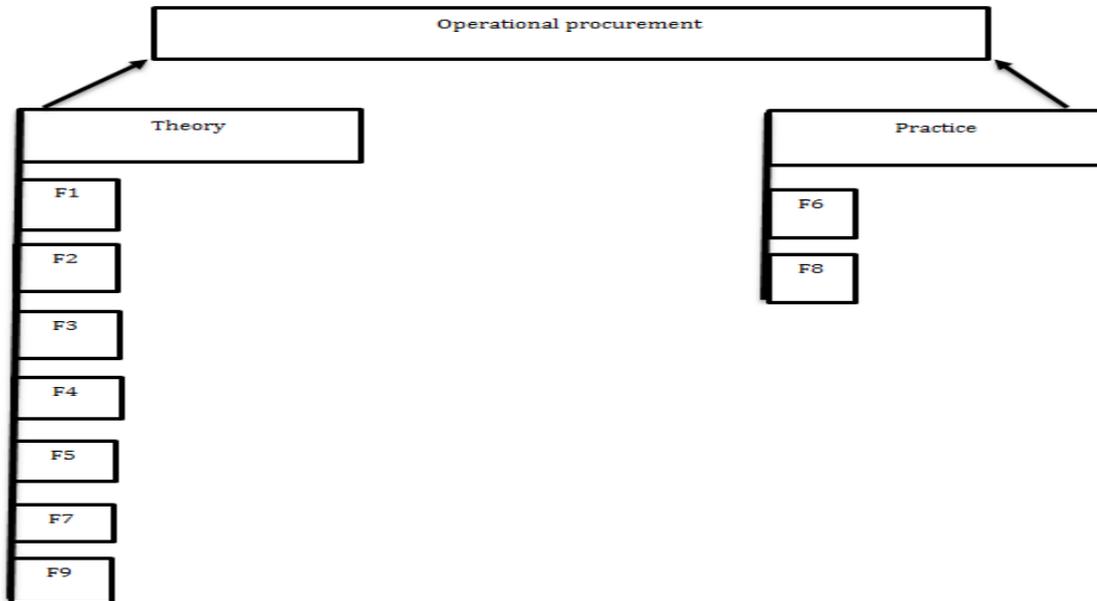
Figure 1. Incentive and transaction cost procurement factors



8 The theory and practice

The classification of the following theory and practice procurement factors is questionable (Figure 2).

Figure 2. Theory and practice procurement factors

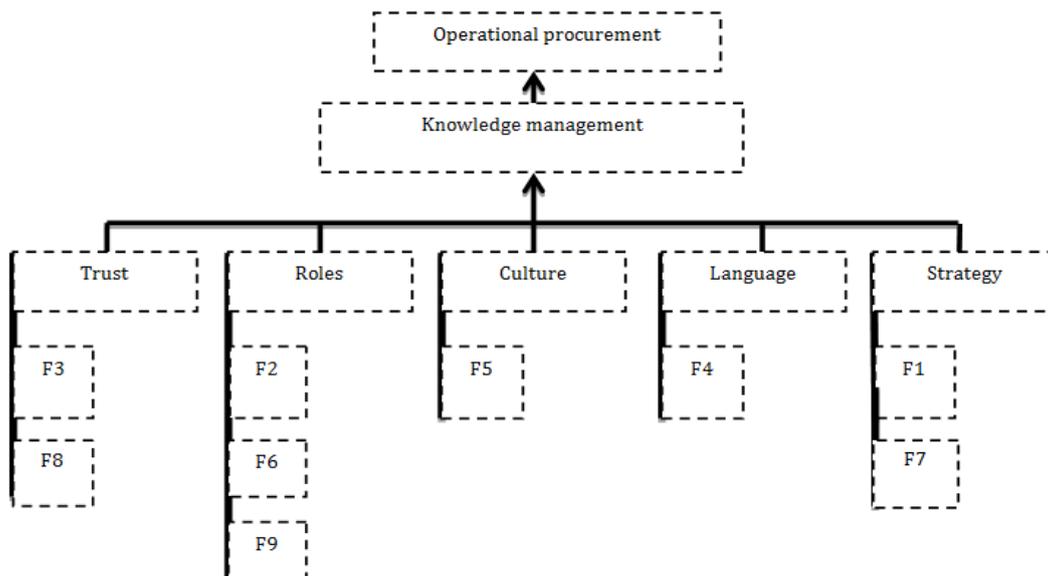


9 Knowledge management theory

The classifications of the following knowledge management, procurement factors are reasonable (Figure 2). When matching municipal procurement factors with existing procurement and knowledge management theories, it becomes clear that municipal

procurement factors can be adequately modelled using the knowledge management theory. This means that municipal procurement is either driven by the knowledge of managers or is basically driven by the theories or individuals' practices.

Figure 3. Knowledge management, procurement factors (The proposed Model)



10 Discussion and conclusion

In this paper, the review of existing procurement theories was conducted, followed by a review of

public institution procurement factors in general. The public institution procurement factors were then matched with the procurement theories to identify the best municipal procurement theory. According to the

results of this paper, the knowledge management theory is the most suitable theory for the modelling of the municipal procurement factors. The main contribution of this paper resides in the fact that it provides evidence of the suitability of procurement theories for the modelling of municipal procurement factors, instead of just choosing one theory over another as usually done in other existing researches. Future researches are encouraged to empirically validate a theoretical model proposed by this paper.

References

1. Audit of the central store's inventory. 2009. Available WWW: <http://www.sandiego.gov/auditor/pdf/centralstoresinventoryauditreport.pdf> (Accessed 24 September 2013).
2. Bajari, P. and Tadelis, S. 2001. Incentives versus transaction costs: a theory of procurement contracts. *Journal of economics*, 32(3): 387.
3. Bashuna, A. 2013. Factors affecting effective management of the procurement function at Nkuru North Sub-Country. *World academic journal of business and applied sciences*, 1(7): 262.
4. Bijulal, D., Venkateswaran, J. and Hemachandra. N. 2011. Service levels, system cost and stability of production inventory control systems. *International journal of production research*, 49(23): 7085-7088.
5. Boughzala, Y., Bouzid, I. and Boughzala, I. 2012. Factors of Public E-Procurement Adoption: an Exploratory Field Study with French Practitioners: Supply Chain Forum. *International Journal*, 13(3): 56.
6. Egbu, C, Vines, M P and Tookey, J. 2003. The role of knowledge management in e-procurement initiatives for construction organizations. *Association of researchers in construction management*, 2(Suppl.): 655.
7. Ethekwini municipality inventory management policy. 2005. Available WWW: www.lesedilm.gov.za/files/Lesedi%20Inventory%20 (Accessed 27 June 2013).
8. Hawkins, T. G. and Muir, W. A. 2014. An exploration of knowledge-based factors affecting procurement compliance. *Journal of public procurement*, 14(1): 2-24.
9. Injazz, J. C. and Antony, P. 2003. Towards a theory of supply chain management: the constructs and measurements. *Journal of operations management*, 22(2): 119-120.
10. Intaher M, A. and Johanna, A. B. 2012. Procurement challenges in the South African public sector. *Journal of transport and supply chain management*, 6(1): 242-255.
11. Intaher M, A. and Johanna, A. B. 2012. Procurement challenges in the South African public sector: *Journal of transport and supply chain management*, 6(1): 242-255.
12. Japheth, O. K. 2013. Factors affecting procurement performance: A case of ministry of energy. *International journal of business and commerce*, 3(1): 54-55.
13. Japheth, O. K. 2013. Factors affecting procurement performance: A case of ministry of energy: *International journal of business and commerce*, 3(1): 54-55.
14. Karjalained, K. 2009. Challenges of purchasing centralization-empirical evidence from public procurement. Available WWW: <http://epub.lib.aalto.fi/pdf/diss/a344.pdf> (Accessed 04 June 2014).
15. Keith F. S. and Rene G. R. 2008. Public procurement policy: implications for theory and practice. *Journal of public procurement*, 8(3): 310.
16. Koenig, M. E. D. 2012. What is KM? Knowledge Management Explained. Available WWW: <http://www.kmworld.com/Articles/Editorial/What-Is-.../What-is-KM-Knowledge-Management-Explained-82405.aspx> (Accessed 04 June).
17. La Londe, B. J. 1998. Supply chain evolution by the numbers. *Supply chain management review*, 2 (1): 7-8.
18. Ligita, V. and Vytautas, S. 2009. The impact of transaction costs on outsourcing contracts: theoretical aspects: *Economics and management*, 14(Suppl.): 1018-1020.
19. Magnussona, J., Nilssonb, A. and Valentinc, K. 2002. Knowledge management theory in inter organizational settings. Available WWW: http://www2.warwick.ac.uk/fac/soc/wbs/conf/olkc/arc_hive/oklc5/papers/f-3_valentin.pdf (Accessed 04 June 2014).
20. Nonaka, I. and Takeuchi, H 1995. *The knowledge creating company*. New York. Oxford University Press.
21. Oliver, R. K. and Webber, M. D. 1992. Supply chain management: Logistics catches up with Strategy. Outlook Cit. Christopher, M.G.: Logistics, The strategic issue. London: Chapman and Hall.
22. Onyinkwa, J. 2013. Factors influencing compliance to procurement regulations in public secondary schools in Kenya: a case of Nyamache District, KisII County. *Interdisciplinary journal of contemporary research in business*, 5(1): 561.
23. Panda, P. and Sahu, G. P. 2012. E-procurement implementation: Critical analysis of the impact of success factors on project outcome. *IUP Journal of supply chain management*, 9(2): 65.
24. Pier, A. M. and Nicola, D. 2010. The economics of procurement contract awarding: problems and solutions in theory and practice. *Journal of public procurement*, 10(1): 94-95.
25. Predrag, J. and Sladana, B. 2012. Improvements in organizing public procurement at the local self government level in Serbia. *Journal for theory and practice management*, 64(Suppl.): 26.
26. Schatteman, A. 2010. The state of Ontario's municipal performance reports: A critical analysis. *Canadian public administration*, 53(4): 531-538.
27. Umakanta, M. and Chaitanya, K. T. 2012. An EOQ model for time dependent weibull deterioration with linear demand and shortages. *Scientific journal of logistics*, 8(2): 124.
28. Vaidya, K., Sajeew, A. S. M. and Callender, G. 2006. Critical factors that influence e-procurement implementation success in the public sector. *Journal of Public Procurement*, 6(1/2): 90.
29. Watermeyer, R. B. 2011. Public procurement regulation in Africa conference: Regulating public procurement in Southern Africa through international and national standards. Available WWW: www.ssinc.co.za/Files/Doc/RBWPapers/T3-18.pdf (Accessed 25 January 2015).