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## THE RELATIONSHIP BETWEEN KNOWLEDGE DISSEMINATION AND ORGANISATIONAL PERFORMANCE IN THE CONSTRUCTION INDUSTRY

*Odnos između širenja znanja i organizacione performanse u  
građevinskoj industriji<sup>∇</sup>*

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### Abstract

*Transferring knowledge within an organisation is essential for the future success of the company. The ability of an organisation to harness knowledge and produce value from it partly defines an organisation's road towards success. Currently, organisations employ a diverse stratum of individuals who represent various generational cohorts. Increased mobility of employees in today's workplace has become a reality that may present benefits but equally pose huge challenges. If mechanisms are not put in place to manage the knowledge resident in the mobile workforce population, it would inadvertently result in substantial corporate memory loss. Certainly this will not augur well for the overall performance of the organisation.*

*Knowledge management has therefore become an important ingredient of the success of organisations as it allows for knowledge to be retained within the organisation rather than be resident only among employees. The transfer of invaluable knowledge from the individual into corporate memory has therefore become a concern. Knowledge dissemination as a notion has emerged as a panacea for expensive corporate memory loss as it enables the sharing of information among employees eventually transforming all individual knowledge into organisational competencies.*

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*This empirical study used a respondent population of employees from companies in the construction and engineering industry in South Africa and factually revealed an association between knowledge dissemination and organisational performance. Part of the practical implication of the study's findings relates to the urgent need for construction firms to begin to find ways to enhance socialisation at project sites given that knowledge dissemination is in part interpreted through the social perspective.*

**Keywords:** *Knowledge dissemination, Knowledge management, Organisational performance*

## 1. Introduction

In organisations with a culture of recognising the significance of knowledge, variables such as accessibility of knowledge, knowledge sharing, knowledge flow, personnel networking, communication atmosphere, leadership, systems thinking, problem solving and many other such factors can be supportive to successful knowledge sharing and learning (Warne, Ali & Pascoe, 2003). Knowing and understanding better the factors that play a role in the mobilization of knowledge so as to institutionalize knowledge management from a knowledge dissemination perspective can aid formulation of appropriate strategies to solve the numerous knowledge sharing challenges faced by organisations (Wong & Aspinwall, 2005).

However, due to the increase in aging workforce in many countries, Franco and Filson (2006) observed that there will be a significant number of experienced employees that will be retiring, changing to part-time, or moving from their employment. Lahaie (2005) described this loss of knowledge as a progression of corporate memory loss. The situation is exacerbated by the fact that new managers must have the prior experiences and processes conveyed to them in a way that is clear and understandable as a necessary precursor for satisfactory work performance.

Martin, (2000) noted that experienced executives hold important know-how and if this information were to be lost, it would result in a costly undertaking for the organization to recover the information. The consequences of knowledge loss range from reduced efficiency, inability to achieve strategic goals, decrease in employee and customer satisfaction levels, and unnecessary costly expenditures on efforts aimed at recouping lost knowledge. All of these ultimately result in a decreased potential for performance on the part of the organisation. Recourse to knowledge management, of which knowledge dissemination is a core component, would suggest that organisations are taking cognisance of potential knowledge drain and acting to mitigate its effect on organisational generations. Nonetheless, research specifically focussing on the knowledge management (KM) component of knowledge dissemination (KD) with the intent to investigate its association (or lack of it) with an organisation's performance is lacking. It is the dearth of research in this area particularly in a South African context that has motivated the current study.

## 2. Literature review

Business knowledge as a strategic competency involves developing and nurturing potentially valuable capabilities. Barney and Hesterly (2008) characterised capabilities as a subset of a firm's resources and defined them as the intangible and tangible assets that enable a firm to take advantage of the other resources it controls.

This implies that capabilities by themselves will not enable an organisation to conceive and implement its strategies but will enable the organisation to use other resources to conceive and implement such strategies, properly. The organisation's most important capabilities are called competencies and for organisations to become successful they must develop these core competencies. Thompson and Martin (2010) concur and further describe competencies as distinguishing skills that yield competitive advantage and provide access to important market areas and segments, make a significant contribution to the perceived customer benefits of the product or service and prove to be very difficult for competitors to imitate. It is against this backdrop that knowledge dissemination is being explored as a distinguishing competency.

Turner and Crawford (1994) classify competencies into two main groups, being corporate and personal. Corporate competencies belong to the firm and are entrenched in the structures and processes of the firm. These therefore are not substantially affected by the resignation of individual employees from the organization. On the other hand, personal competencies reside in individuals and are evident in such characteristics as skills, knowledge, experience, abilities and personality. KD can aid the harnessing of knowledge associated with individual competencies with a view to transforming them into corporate competencies. This should make KD, an element of strategic significance to the organisation.

#### ***Knowledge dissemination (KD)***

Knowledge is viewed in different ways by different scholars: a flowing mix of framed experiences (Remenyi, Money, Price, & Bannister, 2002), justified true belief (Mingers, 2008), organised information with a high proportion of human value added to include insight, interpretation, context, experience, wisdom (Davenport & Völpel 2001); the art of knowing (Minbaeva, 2007; Mitchell & Boyle, 2010) and a product of human reflection and experience (Roth 2003).

Similarly, researchers have used various terms to describe knowledge dissemination. These include knowledge transfer (Argote, McEvily & Riis, 2003; Yang, 2007), knowledge flow (Gupta & Govindarajan, 1991), and knowledge sharing (Sparrow, 2006) among others. Essentially, knowledge dissemination relates to the distribution of embodied knowledge throughout an organisation or a value chain (Makore & Eresia-Eke, 2014). It is therefore the transfer of knowledge within and across settings, with the expectation that the knowledge will be used conceptually or instrumentally, in the form of modified or new practices. Nonaka and Takeuchi (1995) present a structured approach to knowledge dissemination in their knowledge creation spiral in which they identify four categories of knowledge dissemination namely socialisation, externalisation, combination and internalisation.

Socialisation involves the transfer of tacit knowledge from one individual to another. This is usually facilitated in an informal and social setting where there is trust amongst those involved. Externalisation is the process of changing tacit knowledge to explicit knowledge in team interactions involving dialogue, and the use of metaphors in the language would be quite evident. Combination is the cycle where individuals add and contribute their own explicit knowledge to that which has already been created within the organisation. Internalisation entails converting new explicit knowledge into new tacit knowledge through repeated practice.

Existing literature suggests that knowledge dissemination is better explored along two broad perspectives. These are:

1. **An organisational perspective** that focuses on how an organisation can be designed so as to better facilitate knowledge dissemination processes (Spender, 2000; Jashapara, 2011) and,
2. **An ecological perspective** that focuses on the interaction of people with knowledge and can be likened to the natural ecosystem (Rastogi, 2000; Spender, 2000).

#### ***An organisational perspective of knowledge dissemination***

For effective knowledge dissemination, it is as important for the organisation to manage external knowledge as it is to manage internal knowledge. Yang (2007) states that the eventual aim of acquiring and sharing knowledge, is to transform all individual know-how and experiences into organisational competencies. The strength of organisational competencies and their effectiveness would increase if more of the personal intellectual capital is transmitted to and converted into organisational assets. Alhammad, Al Faori and Suleiman (2009) hint that the appropriate transfer of individual knowledge could result in knowledge appreciation and consequently improve the results of organisational learning.

For the organisation's performance to be reflective of its knowledge, it is imperative to develop processes for applying the best knowledge to it. Ensuring the validity and relevance of knowledge and the protection of knowledge assets from unauthorised exposure or theft comes through a designed process fit for the purpose (Wong & Aspinwall, 2005). Having a framework for structuring or organising knowledge is critical to the organisation because there would not be any consistency or common dialogue of knowledge without common representation standards and this would make the asset very difficult to manage (O'Dell & Grayson, 1998). An effective KM framework in an organisation ensures that the knowledge being disseminated has been standardised. Combining or integrating knowledge reduces redundancy and therefore enables the firm to replace out-dated knowledge through these processes. Mechanisms for facilitating this include routines, sequencing, rules and directives, group problem-solving and decision making (Gold, Malhotra & Segars, 2001).

#### ***An ecological perspective of knowledge dissemination***

Knowledge dissemination is one of the key constituencies of knowledge management that is affected by the organisation's social discourse (Davenport & Prusak, 1998). The increased complexity of knowledge dissemination as compared to other knowledge management components is rooted in the facts that:

- knowledge exists in organisational participants, daily tasks, tools and their sub-networks (Argote, McEvily & Rogers, 2003) and
- a considerable amount of the knowledge in organisations is tacit and therefore difficult to articulate (Nonaka & Takeuchi, 1995).

Alhammad et al (2009) identified four dimensions of knowledge dissemination with social connotations and these are:

- Intention to share knowledge
- Mutual relationships
- Team - sense of togetherness and
- Positive feelings about sharing knowledge

*Intention to share knowledge:* is about the employees' willingness to share knowledge in the present and the future. Motivation to intentionally share knowledge is also determined by social variables.

*Mutual relationships:* are rooted deeply in a social ecology of togetherness among employee. This usually generates a positive feeling about knowledge sharing which fertilises future intention for effective knowledge dissemination. Cooperation and collaboration with other team members is inherent where mutual relationships and an expanded scope of association of team members exist. Building mutual relationships can be considered to be one of the most important methods that encourage knowledge dissemination. Knowledge dissemination can then occur through discussion groups (Alhammad et al, 2009), face-to-face interactions and training (Husted & Michailova, 2002; Alhammad et al, 2009), periodic meetings across teams and work units (Bartol & Srivastava, 2002; Alhammad et al, 2009) and best practices (Bartol & Srivastava, 2002; McDermott & O'Dell, 2001; Alhammad et al, 2009)

*Team - sense of togetherness:* A team can be regarded as a group of people working together in order to achieve common objectives. Through the team, knowledge can be disseminated effectively. Again, there needs to be the existence of trust in order for team members to respond openly and share their knowledge (Al-Alawi, Al-Marzooqi & Mohammad, 2007). When there is trust, sharing knowledge becomes a habit and it will make the relationships between the members and the managers stronger. Teamwork, discussion and collaboration also enhance communication among members.

*Positive feeling about sharing knowledge:* Is a measure of the employees' satisfaction about knowledge sharing in the firm. If the employee does not feel threatened after sharing their knowledge, only then can they feel positive about the whole exercise. Also the employees will consider themselves effective members of the organization. The positive feeling also takes place when the employees see the outcomes of the dissemination of the knowledge.

Kalid and Mahmood (2010) identified four elements that could influence knowledge dissemination in an organisation. The first is the *relational channel* that provides the human-to-human link necessary to support the dissemination of tacit knowledge. The second is *partner similarity* and it refers to the similarity that exists between knowledge giver and receiver. People with similar backgrounds, levels and experiences tend to share knowledge. The third element is the *organizational self-knowledge* that refers to the fact that individuals know what they know and also know what other people know. The fourth one is the *divergence of interest*. The divergence of interest between sender and receiver can inhibit knowledge transfer.

### **3. Organisational performance (OP)**

Organisational performance is usually associated with the achievement of strategic goals such as sales growth, market share, profit and customer satisfaction targets among others. With specific reference to profits, OP can be associated with the achievement of financial goals such as return on assets, return on equity, and return on investment.

***The nexus between knowledge dissemination and organisational performance***

Alavi and Leidner (2001) recognize knowledge as a resource and knowledge management as a dynamic capability and competence that can possibly contribute to high organizational performance. A review of knowledge management literature that concentrates on the knowledge-based theory (KBT) (Grant, 1996; Alavi & Leidner, 2001) provides insights and impetus for exploring the relationship between knowledge dissemination and performance. The knowledge based theory (KBT) suggests that the ability to deploy resources successfully depends on the knowledge residing in the human capital of a firm and the development of interrelated knowledge across organisational structures, with organisational routines and processes as instruments of knowledge integration (Grant, 1996). Proponents of the knowledge based theory (KBT) argue that knowledge-based competences and capabilities are usually difficult to imitate and socially complex and that they are among the major determinants of sustainable competitive advantage and superior organisational performance (Grant, 1996; Alavi & Leidner, 2001).

Kosilov (2010) suggested that benefits collateral with knowledge management fall within the categories of knowledge benefits, intermediate benefits and organisational benefits. If KM bodes some benefits for the organisation, then KD which is one of its components should bear some association with organisational performance. This is the premise upon which this study proposes that there is a relationship between knowledge dissemination and a firm's performance.

**4. Research methodology**

This study is underpinned by a positivist philosophy and follows a deductive reasoning approach. The strategy of inquiry employed in this study was the survey method. Ten construction and engineering firms listed on the JSE were selected for the survey. Given the diverse skills and knowledge of workers in the construction and engineering companies, this seemed to present a fertile area for investigation.

A purposive-sampling technique was used to generate a pool of respondents. The respondents were knowledge workers in the respective construction and engineering organisations that were targeted. Knowledge workers, for the purposes of this study, are defined as professional workers from such specialist fields as civil engineers, mechanical engineers, architects, surveyors, designers, technicians, electrical engineers and project managers in the target companies.

This study relied on a sample size of 191 respondents even though 50 questionnaires were distributed per company. This amounts to a response rate of 38%. A survey instrument originally developed and tested by Darroch (2003; 2005) was adopted for this research but with modifications. Part of the modification was to include another section on company performance to the instrument so as to enable the examination of the relationship between knowledge dissemination and organisational performance. The research instrument included fifteen survey items concerned with knowledge dissemination and seven items that addressed organisational performance.

**5. Findings**

The frequency distribution of the respondents as to their level of education shows that 86 (45%) of the respondents had a bachelor's degree, 3 (1.6%) of the

respondents had an honours degree, 2 (1.1%) had a master’s degree and 4 (2.1%) had a matriculation qualification (**Table - 1**). To uphold anonymity and confidentiality, the names of the participating organisations are withheld and are rather represented by alphabets. It is imperative to note that the alphabet assigned to each company is of no significance in itself.

**Table - 1: Respondents dispersion per company**

Company	Total no. of respondents	Matric	Bachelors	Honours	Masters	Other
<b>A</b>	18	0	6	0	1	11
<b>B</b>	24	1	7	3	0	13
<b>C</b>	20	1	7	0	0	12
<b>D</b>	11	1	5	0	0	5
<b>E</b>	20	1	11	0	0	8
<b>F</b>	15	0	6	0	1	8
<b>G</b>	20	0	10	0	0	10
<b>H</b>	21	0	10	0	0	11
<b>I</b>	19	0	16	0	0	3
<b>J</b>	23	0	8	0	0	15

The ‘other’ professional qualifications that the respondents had were mainly diplomas and higher national diplomas in various fields required in the construction and engineering sector.

The questionnaire comprised two different scales. One of the scales measured KD and the other, measured the respondent’s perception of OP. Both scales were tested for reliability and validity. The calculated reliability of a scale, construct or factor examines its internal consistency in measuring a concept, in particular whether or not it will produce consistent findings. The Cronbach’s alpha which is a commonly used test of internal reliability and indicates the extent to which items/elements within a scale are correlated or homogenous (Wong & Aspinwall, 2005) was determined. **Table - 2** summarises the reliability analysis for each scale. The results show that both scales have Cronbach’s alpha in excess of 0.9 and this indicates that the questions combined in the scale are measuring the same thing.

**Table - 2: Results of reliability analysis**

Cronbach's coefficient alpha			
Factors (scales)	No. of items	Raw alpha value	Standardized alpha value
Knowledge Dissemination	15	0.92581	0.91768
Organisational performance	7	0.950784	0.951231

The knowledge dissemination scale (KD) was also divided into five sections known as knowledge dissemination factors (KDF1 to KDF5). Each factor comprised of about three questions that were designed to test and measure the organisations' capacity on knowledge dissemination in specific areas.

A scoring measure for knowledge dissemination was developed. This was based on the rating system in which a score is attached to a response on the 5 options of responses available on the questionnaire e.g. strongly agree = 5 points, strongly disagree = 1 point. The knowledge dissemination scores (on a question-to-question basis) for the ten surveyed construction and engineering companies are summarised in **Table - 3**. The organisation's performance was determined by aggregating the scores of its representative respondents and finding their average.

**Table - 3: Company knowledge dissemination scores**

KNOWLEDGE DISSEMINATION (Scores on the KD scale)											
	A	B	C	D	E	F	G	H	I	J	Average score per question
1	3	3.3	2.3	2.7	3.5	3.1	3.7	3.8	3.8	4	3.3
2	1.8	1.4	2.1	3.3	2.5	3.1	3.7	4.1	3.9	4.3	3
3	2	1.6	1.7	1.6	3	3.5	3.4	4.1	4.2	4.3	2.9
4	1.7	1.8	1.5	1.7	2.8	3.5	3.8	3.7	3.4	3.9	2.8
5	1.9	2.4	2	2.6	2.6	3.7	3.1	3.5	3.6	3.8	2.9
6	1.9	1.8	1.6	2.6	2.1	3	3.3	3.7	3.8	4	2.8
7	1.9	2.4	3.2	3.8	2.7	2.9	2.4	2.7	3.4	3.7	2.9
8	3.6	4	3.9	3.9	3.8	3.2	2.9	3.2	3.4	4	3.6
9	2	1.5	1.7	2	2.1	3.1	3.1	3.3	3.6	4	2.6
10	2.1	2	1.8	2.5	2.6	3.7	4	3.9	4.1	4.3	3
11	3.5	3.8	2.9	3.2	3.8	3.3	3.8	3.9	4.1	4.3	3.7
12	1.8	1.5	1.5	2.2	2.2	3.4	3.5	3.9	4	4.5	2.9
13	2.7	2.6	2.6	3.2	2.7	3.3	3.3	3.4	3.3	4	3.1
14	2.2	1.9	1.9	2.7	2.6	3.2	3.1	3.7	3.3	4.1	2.9
15	1.9	1.3	1.4	1.7	2.3	3.1	3.8	3.7	3.9	4.4	2.8
<b>Total Company Score</b>	<b>34</b>	<b>33.3</b>	<b>32.1</b>	<b>39.7</b>	<b>41.3</b>	<b>49.1</b>	<b>50.9</b>	<b>54.6</b>	<b>55.8</b>	<b>61.6</b>	

The knowledge dissemination scale had fifteen questions. So the lowest possible total company score on adjustment was 15 (1X15) and the highest was 75 (5X15). The companies were grouped into three KD ability categories of “low”, “medium” or “high” on the depending on the total company score in the 15 to 75 range (**Table - 4**). Companies in the 15-35 total score band, in the 36-55 total score band and the 56-75 total score band were thought to have low, medium and high knowledge dissemination capabilities respectively.

**Table - 4: Categorisation according to KD ability**

	HIGH	MEDIUM	LOW
Knowledge Dissemination (KD) Ability	H; I; J	D; E; F; G;	A; B; C

A summary of the findings of respondents’ perceptions of their organisation’s performance for the ten surveyed companies is also presented in **Table - 5**.

**Table - 5: Perception of OP**

PERCIEVED ORGANISATIONAL PERFORMANCE											
	A	B	C	D	E	F	G	H	I	J	Average score per question
1	1.6	1.3	1.9	3	2.5	3.6	4	4.2	4.4	4.5	<b>3.1</b>
2	1.6	1.8	2.8	2.7	2.6	3.6	4.3	4.4	4.4	4.4	<b>3.3</b>
3	2	1.5	2	4.3	2.6	4.3	4.1	4.5	4.5	4.2	<b>3.4</b>
4	3.6	1.6	1.7	4.1	3.1	4.2	4.4	4.4	4.3	4.6	<b>3.6</b>
5	3.2	1.8	1.6	3.3	3.1	4.1	4.5	4.3	4.5	4.5	<b>3.5</b>
6	2.3	1.8	1.8	2.9	3	4.1	4.2	3.8	4	4.7	<b>3.3</b>
7	2.3	1.3	1.7	2.8	2.8	3.7	4.4	4.1	4.4	4.5	<b>3.2</b>
<b>Total Company Score</b>	<b>16.6</b>	<b>11.1</b>	<b>13.5</b>	<b>23.1</b>	<b>19.7</b>	<b>27.6</b>	<b>29.9</b>	<b>29.7</b>	<b>30.5</b>	<b>31.4</b>	

The scores obtained from the perceived organisational scale were relied upon to develop performance categories for the companies. The highest and lowest possible scores are 35 and 7 respectively. Using this range of scores, companies were grouped into low, medium and high performance categories (see **Table - 6**). The low, medium and high performance categories represented company OP scores in the 7-16, 17-26 and 27-35 respectively.

**Table - 6: Categorisation of perceived organisational performance (OP)**

	HIGH	MEDIUM	LOW
Organisational Performance	G; H; I; J	D; E; F;	A; B; C

Table 7 shows the t–grouping from the statistical analysis of the ten companies that were surveyed. The summary of the Company means indicates which pairs are significantly different and which are not in terms of an objective measurement of organisational performance using data from the Johannesburg stock exchange. The organisational performance mean for each company are shown in **Table - 7**. Companies were categorised according to their mean scores as companies with similar means were clearly not significantly different in terms of organisational performance. For example, companies J, H, G and I are not significantly different from one another and companies J, H and G are significantly different from company F but company I is not significantly different company F.

**Table – 7: t–Grouping**

<i>Means with the same letter are not significantly different</i>				
	t-Grouping	Mean	N	Company
	A	2.5202	16	J
	A			
	A	2.2395	9	H
	A			
	A	2.1121	13	G
B	A	1.8438	14	I
B				
B		1.2783	13	F
	C	0.3106	8	D
	D	-0.6515	11	E
	E	-1.8948	14	A
	F	-2.888	12	C
	F			
	F	-3.0539	20	B

The statistical t–grouping of the ten surveyed companies, mirrors the organisational performance categories created on the basis of the company scores obtained on the OP scale. This corroborates the fact that the judgement of the respondents as it pertains to the organisational performance of their respective organisations was largely correct. A cross tabulation of company categories in terms of OP and KD is shown in **Table - 8**.

**Table - 8: Cross-tabulation of KD and OP Categories**

		Organisational Performance		
		LOW	MEDIUM	HIGH
Knowledge Dissemination	LOW	A, B, C		
	MEDIUM		D; E; F	G
	HIGH			H; I; J

The cross-tabulation in **Table - 8** shows that company performance on the KD scale correlated with organisational performance categories. The only company for which this correlation was not precise was company G that belonged in the high OP category but a medium KD group. For the other nine companies, the low-low, medium-medium and high-high matches based upon KD and OP categorisations were exact. For instance, it is apparent that in companies C, B and A, knowledge is not generally disseminated on the job, as observed from the findings and questionnaire feedback. While companies H, I and J seem to be doing well in this aspect, negative responses were given for the items measuring knowledge dissemination on the job namely:

- The workspace being set up to make it easy for people to talk to each other.
- People with similar interests being encouraged to work together to solve problems.
- Frequent reflections on what went wrong/right in aspects of business.

Most respondents were engaged with in their construction sites and they did not have places where they could casually congregate for tea or water dispensing machines that would facilitate mini chats. A respondent opined ‘we are always temporarily resident at project sites and so we cannot set-up such facilities’. Again this can be attributed to the nature of their job. The same negative responses were given for people with similar interest working together and stepping back to reflect on what went wrong/right. The issue of time being of essence in this industry was quite overwhelming in most responses.

The use of specific techniques to disseminate knowledge got the worst ratings, particularly on the question average scale. Some companies employed quality circles techniques, encouraged mentoring and wrote case notes, but these were in the minority. Employing such techniques provides a vast area of opportunity in the construction and engineering industry for personal communication, construction of individual knowledge and cultures of sharing and trust (Southon & Todd, 1999). The incorporation of such techniques into knowledge communities also results in organisational opportunities for building social capital that includes trust and cooperation.

The knowledge dissemination factor that tested if market information was being freely disseminated produced variations amongst companies; with those that had shown some measure of knowledge dissemination awareness scoring in the high range. Poor performance was exhibited on the average question score level across the board on the issue of inter-departmental discussions/meetings, e.g. technical department meeting

with marketing department to discuss future customer needs. This item also had a low score compared to other items in the same knowledge dissemination factor.

## **6. Conclusion and recommendations**

The results of the study point to the fact that a relationship exists between KD and OP. Indeed, it would appear that the relationship between knowledge dissemination and organisational performance is a positive one. This deduction derives from the cross-tabulation of knowledge dissemination and organisational performance which showed that companies H, I and J that had high scores in knowledge dissemination also had high scores in the perceived organisational performance. Conversely, the same trend was observed for companies A, B and C that performed poorly on knowledge dissemination and concurrently performed poorly in organisational performance.

As observed, the increased complexity of knowledge dissemination is rooted in the reality that knowledge exists in organisational participants, daily tasks, tools and their sub-networks and that a considerable amount of the knowledge in organisations is tacit and therefore difficult to articulate. Knowledge dissemination in this instance is interpreted through the social perspective whereby recognition is given to the manifestation of human and social dimensions as its major components.

So, construction and engineering firms need to find ways to enhance the social aspect at the various sites of their projects in a bid to improve knowledge dissemination processes in the organisations. Potential areas that deserve attention include human knowledge capital development, knowledge mapping, the introduction of knowledge teams, cross-functional working, business process restructuring initiatives, collaborative initiatives and the introduction of more formal and informal channels for knowledge dissemination.

The findings of this study create a necessity for future studies to statistically interrogate the strength of the relationship between KD and OP. Furthermore, it may be worthwhile to consider the use of a different methodological approach from the one that was used in this study. This would include perhaps an experimental, longitudinal study with a random sample also involving a larger sample than the one used in this study. Other considerations might include having a sample drawn from multiple industries rather than a single industry. An investigation of the relationship between other knowledge management components and OP would help to inform companies about particular knowledge management elements that they deserve priority attention.

## **References**

1. Al-Alawi, A. I, Al-Marzooqi N. Y. and Mohammad, Y. F. 2007, Organizational culture and knowledge sharing: critical success factors, *Journal of Knowledge Management*, 22(4), 22-42.
2. Alavi, M., & Leidner, D.E. 2001. Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues, *MIS Quarterly*, 25(1), 107-136.
3. Alavi, M. & Leidner, E. D. 2001. Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. *MIS Quarterly*, 25: 107-136.

4. Allee, V. 2003. *The Future of Knowledge, Increasing Prosperity through Value networks*. Amsterdam. Boston. Butterworth-Heinemann.
5. Alhammad, F. Al Faori S. Suleiman A. H. L. 2009. Knowledge Sharing In The Jordanian Universities. *Journal of Knowledge Management Practice*: 10(3)
6. Almeida, P., Phene, A., and Grant, R. 2003. Innovation and knowledge management: Scanning, sourcing and integration, In *The Blackwell handbook of organizational learning and knowledge management*, M. Easterby-smith and M. A. Lyles (eds.), Blackwell Publishing, Oxford, UK.
7. Argote, L., McEvily, B. & Reagans, R. 2003. Managing Knowledge in Organizations: An Integrative Framework and Review of Emerging Themes. *Management Science*, 49:4, 571-82.
8. Barney, J.B. & Hesterly, W.S. 2008. *Strategic Management and Competitive Advantage. Concepts and cases*, 2nd edition, Prentice Hall.
9. Bartol, K. and Srivastava, A. 2002, Encouraging knowledge sharing: The role of organizational rewards, *Journal of Leadership and Organization Studies*, 9(1), 64-76.
10. Darroch, J. 2003. Developing a measure of Knowledge management Behaviours and Practices. *Journal of Knowledge Management*, 7(5), 41-54.
11. Darroch, J. 2005. Knowledge management, innovation and firm performance, *Journal of Knowledge management*. 9(3), 101-115.
12. Davenport, T.H. & Prusak, L. 1998. *Working Knowledge*. Boston: Harvard Business School Press.
13. Davenport, H. T. & Völpel, C. S. C. 2001. The rise of knowledge towards attention management. *Knowledge Management*, 5(3): 10.
14. Gephart, M., Marsick, V., Van Buren, M. & Spiro, M. 1996, "Learning Organizations Come Alive," *Training and Development*, 50(3).
15. Gold, A.H., Malhotra, A. & Segars, A.H. 2001, Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185-214.
16. Grant, R. M. 1996. Toward a knowledge based theory of the firm. *Strategic Management Journal*, 17(10): 109-122.
17. Gupta, A. K. & Govindarajan, V. 1991. Business unit strategy, managerial characteristics and business unit effectiveness at strategy implementation. *Academy of Management Journal*, 27(1), 25-42.
18. Husted, K. and Michailova, S. 2002, Diagnosing and fighting knowledge sharing hostility. *Organizational Dynamics*, 31(1), 60-73.
19. Jashapara, A. 2011. *Knowledge Management: An Integrated Approach*, 2nd edition. Prentice hall. Pearson Education.
20. Kalid B. S. and Mahmood B. K. 2010. Using Stories to Share Knowledge: A Malaysian Organization Case Study, *Journal of Knowledge Management Practice*, 11(1).
21. Kosilov, A. 2010. Improving Organization Performance with a Knowledge Management System. International Atomic Energy Agency School of Nuclear Knowledge Management. Presented to the Trieste, Italy. 23 – 27 August.
22. Lahaie, D. 2005, The Impact of Corporate Memory Loss, What Happens When a Senior Executive Leaves. *Leadership in Health Services*, 18(3), 35-48.
23. Li, Z. & Zhu, T 2009. Study on the Influence Mechanism of Social Capital to Informal Knowledge Transfer among Individuals. *Proceedings of the 2009*

- International Symposium on Web Information Systems and Applications (WISA'09), Academy Publisher, Oulu, Finland, 355-358.
24. Makore, S. and Eresia-Eke C.E. 2014. The Role of Knowledge Management in Organisational Performance, Proceedings of the 15th European Conference on Knowledge Management (ECKM2014), 4-5 September, Santarem. Portugal, [Online] Available from <http://connection.ebscohost.com/c/articles/99225302/role-knowledge-management-organisational-performance> [Accessed 05.04.2015].
  25. Martin, B. 2000, Knowledge Management within the Context of Management: An Evolving Relationship. *Singapore Management Review*, 22(2), 17-36.
  26. McDermott, R., & O'Dell, C. 2001. Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge Management*, 5(1), 76-85.
  27. Minbaeva, D. 2007. Knowledge transfer in Multi-national Corporations. *Management international review*, 47(4): 16.
  28. Mingers, J. 2008. Management Knowledge and Knowledge Management: realism and forms of truth. *Knowledge Management Research and Practice*, 6 (1): 14.
  29. Mitchell, R. & Boyle, B. 2010. Knowledge Creation Measurement Methods. *Knowledge Management*, 14(1): 15.
  30. Nonaka, I. & Takeuchi, H. 1995. *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press, New York.
  31. O'Dell, C. & Grayson, C. J. 1998. If only we knew what we know: identification and transfer of internal best practices. *California Management Review*, 40(3), 154-174.
  32. O'Shanassy, T., 2008. Sustainable competitive advantage or temporary competitive advantage: Improving understanding of an important strategy construct, *Journal of Strategy and Management* 1(2), 168-180.
  33. Rastogi, P. 2000. Knowledge Management and Intellectual Capital: The New Virtuous Reality of Competitiveness. *Human Systems Management*, 19(1), 39-49.
  34. Remenyi, D., Money, A., Price, D., & Bannister, F. 2002. The Creation of Knowledge through Case Study research. Presented at the Third European Conference on Knowledge Management, Trinity College, Dublin.
  35. Roth, J. 2003. Enabling knowledge creation: Learning from an R&D organisation. *Knowledge management*, 7(1): 16.
  36. Spender, J. C. 2000. Tacit Knowledge In Organizations. *Academy of Management Review*, 25, 443-446.
  37. Sveiby, K. E. 2001. A Knowledge Based Theory of the Firm to Guide in Strategy Formulation. *Journal of Intellectual Capital*, 2(4) 344-350.
  38. Turner, D. & Crawford, M. 1994. Managing current and future competitive performers: The role of competency. In G. Hamel, & A. Heene (Eds.), *Competency-based competition: Strategic management series* (pp. 241– 254). Chichester, England: Wiley.
  39. Warne, L., Ali, I.M. & Pascoe, C. 2003. Team Building as a Foundation for Knowledge Management: Findings from Research into Social Learning in the Australian Defence Organization. *Journal of Information & Knowledge Management*. 2(2), 93-106.

40. Wong, K.Y. & Aspinwall, E. 2005. An Empirical study of the Important Factors for Knowledge Management Adoption in the SME Sector. *Journal of Knowledge Management*, 9(3): 64-82.
41. Yang, J. 2007. The impact of knowledge sharing on organizational learning and effectiveness, *Journal of Knowledge Management*, 11(2), 83-90.

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### **Apstrakt**

*Prenos znanja u okviru organizacije je od suštinske važnosti za budući uspeh kompanije. Sposobnost organizacije da iskoristi znanje i proizvode vrednost delimično određuje put organizacije ka uspehu. Trenutno, organizacije zapošljavaju raznolik sloj pojedinaca koji predstavljaju različite generacijske kohorte. Povećana mobilnost zaposlenih postala je realnost koja može predstavljati prednosti ali istovremeno i ogromne izazove. Ako mehanizmi upravljanje znanjem mobilne radne snage nisu uspostavljeni može doći do značajnog gubitka korporativne memorije. Svakako, ovo nije dobar znak za ukupan učinak organizacije.*

*Upravljanje znanjem je stoga postao važan sastojak uspeha organizacije. Prenos neprocenjivog znanja od pojedinca ka korporaciji je postao važan. Pojam širenja znanja je nastao kao lek za skupe gubitke korporativne memorije jer omogućava razmenu informacija među zaposlenima koji na kraju kreiraju individualna znanja u organizacionoj nadležnosti.*

*Ova empirijska studija koristi upitnik kojim su ispitani zaposleni u preduzećima za izgradnju i inženjering u Južnoj Africi. Praktične implikacije studije odnose se na hitne potrebe građevinskih firmi da počnu iznalaženje načina da poboljšaju socijalizaciju u projektima s obzirom da se širenje znanja tumački kroz društvenu perspektivu.*

**Ključne reči:** širenje znanja, upravljanje znanjem, organizacione performanse

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