

THE IMPACT OF KNOWLEDGE MANAGEMENT AND TECHNOLOGY: AN ANALYSIS OF ADMINISTRATIVE BEHAVIOURS

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ABSTRACT

Knowledge management is crucial in higher education practices that refer knowledge sharing, feedback and communication process as part of the quality improvements. In this process, technology has a role to diffuse knowledge and create a link for sharing within the knowledge management process. In this respect, this research study aims to examine the perceptions of 199 academicians from different higher education institutions towards administrative behaviours regarding reasoned action theory framework. The likert scale was conducted to volunteer participants in respect to survey approach. The research results exhibited that almost all items within the scale remarked that academic behaviours such as establishing teams, team inspiration, communication practices and feedback have practiced in higher education administration.

Keywords: administration, behaviours, knowledge management, perception, survey

INTRODUCTION

Knowledge management is an integration of management and information science that has works with the impact of technology for the competitive advantage of the organizations and education institutions (Su, Lin, 2006). It is an amended approach to analyze planning, organizing and leadership roles for the construction of knowledge regarding the collective and agreed perceptions of stakeholders who involve in management process (Damodaran, Olphert, 2000; Leung, 2007; Zhao, de Pablos, 2010).

The knowledge management encapsulates gaining, clarification, and communication of professional views for organizational knowledge. In this respect, there is an intensified need to consider the impact of knowledge management and technology for better understanding of sharing, exchanging ideas and the role of leadership behavior for mutual understanding within organizations and institutions (Fawcett, Brau, and Fawcett, 2005; de Lima, 2008; Owlia, 2010).

In today's context, knowledge is characterized as creating and constructing knowledge regarding the productive influence of shared, agreed perceptions which core members involve and valuable perceptions are taken into account in continuous quality improvement. Higher education institutions are the significant example of how knowledge is managed and constructed within a participative involvement of members from diverse fields. In addition, technology has a great role to diffuse knowledge and create a platform of sharing for collective vision within the frame of continuous quality improvement. In this respect, knowledge management provides knowledge in hand to be operational in within institutions which this situation puts forwards to the institutions to be in the competitive advantage (Pan, Scarbrough, 1999; Grimsæth, Nordvik, and Bergsvik, 2008; Roberts, 2010).

In other words, knowledge management exhibits how leadership behaviors are changing and how technology provides enhancement of sharing, communication for the quality. The impact of knowledge management and the technology as dynamic mechanism affects the how knowledge is held, transferred and created within and between institutions for better working practices. Therefore, creative dynamism, widespread diffusion and multiple creation of knowledge as a knowledge intensive business activity are fostered where technology plays a great role as a bridge (Mullen, Jones, 2008; Mangin, and Stoelinga, 2010).

Within a frame of knowledge management and transformation, the term "community of practice" becomes crucial to examine the changing leadership behaviors and the impact of technology to the transformation process. In this respect, higher education institutions need to focus on mutual relationship, doing things together, the rapid flow of information, knowing what others know, what they can do, and how they can contribute, assessing the appropriateness of actions and reflecting in and on actions within administrative processes in order to have success on organizational knowledge and learning thereby success on the managerial implications for quality (Howells and Roberts, 2000; Bouncken, Pyo, 2002; Alazmi and Zairi, 2003; Choo, 2004; Roberts, 2010). In addition, higher education institutions should highly concentrate on the transformation of knowledge with technology as a tool to practice planning, organizing and diffusing knowledge. In other words, technology needs

to be a strategy within the administration to make easy path for knowledge creation and organizational knowledge (Paliszkievicz, 2004).

Knowledge management refers to the ability to manage “knowledge”. It is a holistic view of mechanisms and processes that is based on the creation, collection, storage, retrieval, dissemination and utilization of organization knowledge that is an inter-disciplinary amendment in the academic world especially in the administration (Cabrera and Cabrera, 2005; Paliszkievicz, Joanna, 2007).

The theory of “reasoned action” is the framework of this study which it covers the intention to engage in a specific behavior is determined by attitudes towards that behavior as well as by perceptions of social norms (Fishbein and Ajzen, 1975). The literature considered the success of this theory by providing evidence of the bridge between attitudes and perceived norms, intentions and the behaviors (Kim and Hunter, 1993). Within the implementation on knowledge sharing as regards the knowledge management, this theory practices how intentions are transformed to sharing knowledge with an actual experience. This theory suggests that the first step is to identify the factors that affect people’s attitudes towards sharing and their perception of norms for sharing in order to influence intentions to share knowledge within the organizations. Regarding this framework, this study exhibits that technology in a conceptual manner and the administrative behaviors in relation to academicians’ perceptions as interconnected factors influence knowledge sharing and logical actions for doing better within the higher education institutions (Mullen and Graves 2000; Engwall, Kipping, 2004; Su, Lin, Yichen, 2006).

The intention of this study here is to contribute to research focused on how academicians perceive administrative behaviors which leadership capacity and performance is grounded on construction of organizational knowledge as regards the impact of technology and reasoned actions within participative management.

In this respect, the research process reveals the following research questions that these questions provide a concrete map for the process throughout the research.

Q1. How do academicians from different higher education institutions perceive administrative behaviours?

Q2. Which factors effect the perceptions of the academicians towards administrative behaviours within the frame of knowledge sharing and management?

METHOD

Contextualization

Conducting a research in a large spectrum in relation to leadership capacity and performance based on perceptions in higher education practices is challenging process. Significantly, living in a small community, decentralized perspective on administrative practices within the research context exhibit how carrying out research is a challenge and how this study is a valuable to serve as a guide to higher education practices regarding the understanding of participative management and technology integration to the practice for knowledge management in continuous quality improvements.

Research Design and Procedures

In this research, quantitative research design was employed to examine the perceptions of academic staff towards administrative behaviours in different higher education institutions (Cohen Manion, Morrison, 2000; Cresswell, 2003).

Instrumentation

Survey was used as a research approach that academic staff from Northern Cyprus universities which are Near East Univeristy, Eastern Mediterranean University, Lefke European University, academic staff from Konya Selçuk University and Abant İzzet Baysal University in Turkey were selected as research participants to the research. Purposive sampling was used that 199 academic staff voluntarily participated to the research. In this respect, likert scale based on seventy items was conducted to academic staff from different universities to examine the perceptions towards administrative behaviours as regards the impact of knowledge management and technology.

The following Table I detailed participants in this research study.

Table I

		Eastern Mediterranean University	İzzet Baysal University	Lefke European University	Konya Selçuk University	Near East University	Total
1	Research Assistant	14	24	22	26	9	95
2	Specialist	18	1	8	8	22	57
3	Dr.	5	3	1	-	3	12
4	Assist Prof. Dr.	2	8	7	-	4	21
5	Assoc. Prof. Dr.	1	1	1	5	-	8
6	Prof.	-	3	1	1	1	6
Total		40	40	40	40	39	199

RESULTS AND DISCUSSION

In respect to questionnaire results of the academicians from different higher education institutions, here is an intention to open an academic debate on the role of the theory of reasoned action within knowledge management and the impact of technology integration to smooth this process for the quality improvement. In this respect, the following research results are revealed as regards the research focus and results are discussed based on the perceptions of the academicians.

This study covered the survey results on a seventy itemed likert scale in order to reveal the perceptions of academicians towards administrative behaviours from various higher education institutions at the same time factors influencing the perceptions as regards the knowledge management process.

Demographic information of the participants

In this research study, the following Table II summarized the numbers of academic staff as research participants. In respect to following table, a hundred ninety nine participants become part of this process.

Table II

University	Near East University	Eastern Mediterranean University	Lefke European University	İzzet Baysal University	Konya Selcuk University
Numbers of Academicians	39	40	40	40	40

In this research, the following Table III summarized gender of research participants. In this respect, a hundred eight female and ninety one male participants involved research.

Table III

Gender	N	\bar{X}	SS	Sd	T	P
Female	108	288.14	60.86	197	10.491	0.001
Male	91	283.26	46.17			

In this research study, the following Table IV summarized the role in management process.

Table IV

Administrative Duties	N	\bar{X}	SS	Sd	T	P
Yes	64	284.85	57.16	197	0.745	0.389
No	135	286.41	53.49			

Perceptions of academicians towards administrative behaviours

In here, a seventy items of the scale were exhibited and discussed inline with the perceptions of academicians towards administrative behaviours and factors that influence these perceptions within a frame of knowledge management as following.

The following Table V illustrates the ANOVA test results on different variables.

Table V

Higher Education Institutions	Variables	Sum of Squared Error	N	Mean Square	F
Eastern Mediterranean University	Academic Title	32.179.298	4	8.044.825	1.708
	Age	51.126.003	4	12.781.501	3.066**
	Period of Working	89.591.694	4	22.397.924	7.296***
	Period of Administrative Duties	24.642.125	4	6.160.531	1.251
Lefke European University	Academic Title	44.956.892	5	8.991.378	4.506***
	Age	10.590.260	4	2.647.565.907	
	Period of Working	10.698.733	4	2.674.683.917	
	Period of Administrative Duties	25.360.475	5	5.072.095	1.972*
Near East University	Academic Title	9.333.567	4	2.333.392	1.499
	Age	4.771.433	4	1.192.858.705	
	Period of Working	2.302.048	3	767.349.448	
	Period of Administrative Duties	4.452.294	5	890.459.508	
Konya Selçuk University	Academic Title	3.102.415	3	1.034.138.678	
	Age	4.792.169	4	1.198.042.788	
	Period of Working	8.439.933	4	2.109.983	1.489
	Period of Administrative Duties	1.899.642	4	474.910.296	
İzzet Baysal University	Academic Title	11.385.250	5	2.277.050.942	
	Age	7.293.327	4	1.823.332.740	
	Period of Working	4.077.768	4	1.019.442.399	
	Period of Administrative Duties	8.662.415	5	1.732.483.694	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Between groups ANOVA test results are as shown in Table V. Based on academic titles, the perceptions of academicians towards administrative behaviours were evaluated through using t-test. Regarding t-test results, there was a significant difference in the perceptions of the research assistants and professors ($p < 0.001$) in Lefke European University. When the academic titles increase, the perceptions towards administrative behaviours were highly affected. In addition, there was a significant difference in perceptions of academic personnel who experienced administrative duties ($p < 0.05$). The main significant difference was observed who experienced administrative duties between 3-4 years and 0-2 years. In this respect, when the year of administrative duties increase, the perceptions towards administrative behaviours had positive influence and direction to intention.

The period of working is a significant factor that affected the perceptions of academic personnel in Eastern Mediterranean University ($p < 0.001$). When age increases, the perceptions towards administrative behaviours were highly affected ($p < 0.01$). The t-test research results confirmed ANOVA results that the above variables are significant to reveal the various perceptions of the academicians from different university regarding administrative behaviours. Significantly, these variables could not be observed with a meaningful difference for the other universities within the research process.

The following Table VI indicated perceptions of academicians towards administrative behaviours. The items that academic staff preferred to response as “Always” are given below.

Table VI

	Average
Self-confident	4.22
Spends most of his time at work	4.20

The following Table VII indicated perceptions of academicians towards administrative behaviours. The items that academic staff preferred to response as “Frequently” are given below.

Table VII

	Average
Don't respect to the staff who are not in higher position	3.13
Trains the one to replace him while moving to a higher position	3.334
Apologize in case of mistake	3.30
Transfer authority to his personnel	2.90
Open for criticism	3.31

The following Table VIII indicated perceptions of academicians towards administrative behaviours. The items that academic staff preferred to response as “Sometimes” are given below.

Table VIII

	Average
Determines which roads to be followed to realize the objective	3.90
Makes the planning of progress on the basis of time	3.75
Makes financial plans for progression	3.65
Forms the appropriate working team while choosing the roadmap	3.81
Knows the people working with him well and treats them accordingly	3.88
Make good use of practical intelligence during the implementation	3.79
Has no indication of boredom while working	3.82
Forms well-matched working teams while choosing the roadmap	3.66
Forms the appropriate working team for the objective while choosing the roadmap	3.71
Creates a highly-motivated personnel in each working team	3.62
Includes experts in staff	3.70
Sets experience as a priority while forming teams	3.67
Coordinates his working team harmoniously	3.60
Includes staff who has the power of internal inspection	3.58
Includes staff who has good skills in establishing relations	3.67
A good instructor	3.95
Pays particular attention to the human element	3.94
Motivates individuals	3.50
He is aware of the fact that every individual has accomplishments of his own	3.71
Uses the body language well	3.70
Considers others' views in a reasonable manner	3.71
Gains the respect of others who join him in the way towards the objective	3.82
Can perceive events as a whole	3.80
Makes a balance between emotion and the reason	3.68
Owens the power of thinking	4.04
Inspires trust instead of fear	3.70
Shows respect to the individual's personality	3.88
Prefers using the method of persuasion instead of punishment	3.73
Allows personal initiatives	3.64
Knowledge and experience have equal importance for him	3.69
Ensures motivation in the institution he works in	3.75
Pays attention to communication with people	3.98
Coherent	3.79
Has the style of an administrator and practises the democratic way of administration	3.73
Makes empathy during the communication process	3.61
Protects the rights of his workers	3.70
Good at time control	3.79
Has the ability to make self-criticism	3.45
Uses feedback	3.60
Works to leave a good heritage for future generations	3.68
Capable of handling	3.97
Has good speaking skills	4.11

Always cautious	3.91
Persuades people through request, not through order	3.73
Passes on excitement to others working with him	3.48
Careful	4.05
Delightful but firm	3.60
Makes a balance between stinginess and lavishness	3.59
Makes a balance between impatience and imperturbability	3.68
Spends most of his time at work	3.89
Keeps his promises	3.84
Receives everyone at work in his office	3.86
Sees silence as a virtue when necessary	3.51
Always works to realize himself	4.07
Has a strong personality	4.03
Sensitive towards social problems	3.81
Work has the priority	3.78
Gives very much importance to love in his job	3.64
Mobilizes people in line with a mission	3.75
Establishes emotional ties and creates harmony	3.43
Works with determination until realizing the objective	3.93
Determines the strategy	3.91
Creates culture	3.71

Regarding items evaluation, the perceptions of academicians towards administrative behaviours reflected that each item within the scale underlines the current practices of administrative behaviours in higher education institutions. Significantly, administrative behaviours regarding perceptions of academicians such as communication sensitivity on human nature and problems, empathy within communication practices, team inspiration and knowledge sharing exhibited cues how knowledge sharing and management works in higher education practices, although impact of technology in this process stays partial.

CONCLUSION AND RECOMMENDATIONS

In higher education practices, knowledge management becomes a significant part of the quality improvement that leads collaborative effort of the professionals to share knowledge, construct knowledge in order to improve the efficiency for better working practice (Yang, 2007). Significantly, reasoned action theory underlined that agreed perception and the intention by humans are the critical starting points for the knowledge sharing process. In addition, technology has a role to facilitate the process. In particular, the role of technology reflects active feedback, knowledge sharing, and alternative path way to negotiate and discuss on issues in utilizing organizational knowledge and culture (Lee, Lu, Yang, Hou, 2009).

In this study, the perceptions of academicians from different higher education institutions towards administrative behaviours remarked that examined items within the scale as administrative behaviours have been practiced in higher education. In addition, these items have potential influence to reveal the perception, intention and human factor in knowledge management, although the technology factor stays partial in this study that needs to be investigated in a larger spectrum.

REFERENCES

- Alazmi, M. and Zairi, M. (2003). Knowledge management critical success factors. *Total Quality Management & Business Excellence*, 14(2), 199- 204.
- Blumentritt, R. and Johnston, R. (1999). Towards a Strategy for Knowledge Management. *Technology Analysis & Strategic Management*, 11(3), 287- 300.
- Bouncken, R. B. and Pyo, S. (2002). Achieving Competitiveness Through Knowledge Management. *Journal of Quality Assurance in Hospitality & Tourism*, 3(3), 1- 4.
- Cabrera, E. F. and Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *The International Journal of Human Resource Management*, 16(5), 720 -735.
- Choo, C. W. (2004). Perspectives on Managing Knowledge in Organizations. *Cataloging & Classification Quarterly*, 37(1), 205-220.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education*. USA: RoutledgeFalmer.
- Creswell, J. W. (2003). *Research design: Qualitative and quantitative approaches*. United Kingdom: SAGE.
- Damodaran, L. and Olphert, W. (2000). Barriers and facilitators to the use of knowledge management systems. *Behaviour & Information Technology*, 19(6), 405- 413.

- de Lima, J. Á. (2008). Department networks and distributed leadership in schools. *School Leadership & Management*, 28(2), 159 – 187.
- Du, F. (2007). A case study of teacher leaders as group leaders: Implications for research and teacher education. *The Teacher Educator*, 42(3), 185- 208.
- Engwall, L. and Kipping, M. (2004). Introduction: the dissemination of management knowledge, *Management Learning*, 35(3), 243–53.
- Fawcett, S. E. , Brau, J. C. and Fawcett, A. M.(2005). Perceptions of the teacher-leader in modern society: Insights from the master teacher's pedagogy. *International Journal of Public Administration*, 28(5), 465 – 487.
- Fishbein, M. and Ajzen, I. (1975). *Beliefs, attitudes, intention and behaviour: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Grimstæth, G., Nordvik, G. and Bergsvik, E. (2008). The newly qualified teacher: a leader and a professional? A Norwegian study. *Professional Development in Education*, 34(2), 219 – 236.
- Howells, J. and Roberts, J. (2000) 'From innovation systems to knowledge systems', *Prometheus*, 19(1), 17–31.
- Kim, M. and Hunter, J.E. (1993) 'Relationships among attitudes, behavioural intentions, and behaviour: A meta-analysis of past research, Part 2. *Communication Research*, 20, 331–64.
- Lee, C-L., Lu, H-P., Yang, C., Hou, H-T. (2009). A process-based knowledge management system for schools: a case study in Taiwan. *Turkish Online Journal of Educational Technology*, 9(4), 10-21.
- Leung, Z. C. S.(2007). Knowledge management in social work-towards a conceptual framework. *Journal of Technology in Human Services*, 25(1), 181- 198.
- Mangin, M. M. and Stoelinga, S. R. (2010). The future of instructional teacher leader roles. *The Educational Forum*, 74 (1), 49 — 62
- Mullen, C. A. and Jones, R. J.(2008). Teacher leadership capacity-building: developing democratically accountable leaders in schools. *Teacher Development*, 12(4), 329 -340.
- Owlia, M. S. (2010). A framework for quality dimensions of knowledge management Systems. *Total Quality Management & Business Excellence*, 21 (11), 1215- 1228.
- Paliszkiwicz, J.(2007). 'Knowledge management: An integrative view and empirical examination. *Cybernetics and Systems*, 38(8), 825-836.
- Pan, S.L. and Scarbrough, H.(1999). Knowledge management in practice: An exploratory case study. *Technology Analysis & Strategic Management*, 11(3), 359- 374.
- Roberts, J. (2010). Communities of management knowledge diffusion. *Prometheus*, 28(2), 111-132.
- Roberts, J. (2000). From know-how to show-how? Questioning the role of information and communication technologies in knowledge transfer. *Technology Analysis and Strategic Management*, 12(4), 429–43.
- Su, H. Y. and Lin, Y. (2006). Enhancing knowledge-based service quality: A knowledge management perspective. *The Service Industries Journal*, 26 (7), 787- 800.
- Yang, J. T. (2007). Knowledge sharing: Investigating appropriate leadership roles and collaborative culture. *Tourism Management*, 28(2), 530-543.
- Zhao, J. and de Pablos, P. O. (2010). Regional knowledge management: The perspective of management theory. *Behaviour & Information Technology*, 1.