



The Analysis of Impacts for Knowledge Management in Higher Education Sector: The Case of Ikh Zasag International University, Mongolia

Dashdeleg, Magsarjav
Mongolian University of Science and Technology

Munkh-Undrakh, Baatarjav
Royal International University, Mongolia

Munkhsaruul, Baatarjav
Ewha Womans University, Seoul, Korea

Dulguunmandakh, Enkhbold
Faculty of Social Sciences in Minority Policy,
Eötvös Loránd University, Budapest, Hungary

ABSTRACT

The primary purpose of our research is to examine the relationships between academics' capability skills, attitudes and communication skills toward knowledge management. We worked on this study using basic management theory and social science to establish work assumptions and new conceptual models that international researchers employed in their research. The poll was done online by 133 professors, allowing us to classify and compare some of the results. We used SMART PLS-3.0, a qualitative research tool, to evaluate correlational and multifactorial data, as well as to present the findings of the forensic scientist's investigation of how factor variables affect knowledge management. Our research has the potential to be significant in addressing both theoretical and practical concerns, as well as implementing additional most necessary practices at Ikh Zasag International University in Mongolia.

Keywords: professors' capability skills, professors' communication skills, professors' attitudes, knowledge management, Ikh zasag International University, Mongolia.

INTRODUCTION

Knowledge management in higher education is critical for increasing the efficiency and efficacy of educational facilities. It refers to the processes of developing, sharing, applying, and managing knowledge in order to improve academic and administrative services. Implementing knowledge management systems in universities can foster innovation, improve learning outcomes, and enhance collaboration among teachers and students [1]. Moreover, effective knowledge management practices contribute to the preservation and dissemination of knowledge, which is vital for maintaining a competitive edge in the rapidly evolving educational landscape. Ultimately, knowledge management not only supports institutional goals but also enriches the overall educational experience for students and faculty alike.

In our study, we looked at the knowledge management of the academics at Ikh Zasag International University. Established in 1994, Ikh Zasag International University (IZIU) is a comprehensive institution with ten affiliated schools. It is highly commendable that IZIU was given the title of "IKH ZASAG" ('Great Governance') during the Chinggis Khaan era. With two campuses, IZIU has been conducting research and teaching for the past 20 years since its founding. Around 7500 students, including those from abroad, are enrolled in more than 50 undergraduate and graduate degree majors at IZIU at the moment. The university has graduated more than 12,000 students in the last few years. Roughly 90% of them have jobs already.

THE THEORETICAL FOUNDATIONS OF KNOWLEDGE MANAGEMENT

We must explain the ideas that are being used in the field as well as the sources that supported their growth if we want to construct an evolution of knowledge management theory. There must be more than just facts, variables, constructions, or diagrams for something to be considered a theory. Unfortunately, there is a great deal of debate on the definition of theory. Some people believe that theory clarifies the relationships between various phenomena [2]. According to Lopez et al. (2004), learning and knowledge management in businesses are interdependent (Singh, 2008). information management is a circular process that makes learning a direct activity inside an organization and promotes information exchange [3].

It is essential to understand the fact when professors show the intention to share skills, experience, attitudes and knowledge with their fellow professors. Similarly, it is also important for the higher education institute to understand their professors' skills from a research and practical perspective because sometimes they are ready to share their knowledge and skills [4]. We argued that knowledge management is fundamentally linked to learning within organizations, as effective KM facilitates a continuous exchange of information that enhances learning processes among employees and promotes organizational growth. The professors role in higher education, the willingness of professors to share their expertise and knowledge is crucial. Institutions must recognize and leverage the diverse skills of their faculty to foster an environment conducive to knowledge exchange and collaborative learning.

Professors' Capability on Knowledge Management

Expertise and Communication Skills: Professors must possess a high level of expertise and strong communication skills to effectively share both tacit and explicit knowledge with their colleagues, which is essential for fostering an environment conducive to knowledge sharing within educational institutions. **Trust and Ethical Considerations** of willingness of professors to engage in knowledge sharing is significantly influenced by trust and perceptions of ethical standards within their institutions. A supportive organizational culture that emphasizes trust can enhance collaboration and the sharing of expertise among faculty members[5].

Effective knowledge sharing among professors requires appropriate incentives and institutional support, including the establishment of platforms for knowledge exchange and a culture that encourages collaboration. These factors play a crucial role in motivating professors to share their knowledge and experiences. Professors can significantly enhance their careers by developing professional skills that are essential across various roles and industries. These skills not only facilitate job acquisition and advancement but also improve workplace relationships and overall job performance. Professors exhibit critical abilities in knowledge

acquisition, organization, development, and innovation. These skills are essential for effectively managing and sharing knowledge within educational institutions, as they contribute to the overall improvement of teaching practices and academic collaboration [6].

Despite their capabilities, professors often face barriers such as cultural codes of professionalism and environmental constraints that hinder effective knowledge sharing. These obstacles can include rigid institutional structures and time limitations, which complicate the transfer of expertise between experienced and novice faculty members [7]. According to the literature review, we were hypothesized as below:

- H1: Professors' professional capability have an influence on knowledge management.

Professors' Attitudes on Knowledge Management

Professors' attitudes in the higher education sector are shaped by various factors, including their perceptions of institutional support, job satisfaction, and the balance between teaching and research [8]. Research indicates that faculty at public undergraduate institutions express greater interest and satisfaction in teaching compared to research, although there is a notable disparity in perceived institutional support for teaching, which may affect morale. Additionally, attitudes towards research are generally positive, with many perceiving themselves as capable researchers despite some reservations about their experience [9].

The knowledge sharing attitude within the organizations depends upon several factors. Employees' tendencies are vital in this regard. Some of the researchers argued that two factors are important, the first one is the attitude and the second one is subjective norms. Aneela Syed and et al, (2020), constructed upon knowledge management processes, the current study investigated the interrelationship between knowledge sharing attitude among the faculty members and knowledge management processes in higher education institutes [10]. Several prior studies have demonstrated the separate or simultaneous positive impact of knowledge management enablers and processes on knowledge sharing attitude of university teachers (Gold, Malhotra, Segars 2001; Iqbal et al., 2019; Sahibzada et al., 2020) [11]. According to the literature review, we were hypothesized as below:

- H2: Professors' attitudes have an influence on professional knowledge management.

Professors' Communication Skills on Knowledge Management

There are several studies which show an association between knowledge management and communication e.g. Kumar and Gupta in 2012 tried to cover different aspects of knowledge and knowledge management systems and its role in multinational corporations [12]. It has been proved in researches and studies that effective communication is very significant for any business and it of utmost important for top management, directors, managers & employees working at any level to communicate with each other in effective and proficient manner to develop a successful business environment.

Similarly, knowledge management can also be done successfully with effective communication between top management, managers and other employees. Managers with poor or deprived communication skills cannot interact effectively with team and is also not able to share all the relevant information which can disturb and destroy the knowledge management system of an organization. Manager must be able to set a proper knowledge management system and has competencies to communicate with teams [13].

Organizational communication is a well-defined process of sharing and transferring of opinions, data, thoughts, experiences and emotions between employees of an organization. If a manager is a good communicator with excellent skills can intensively in create and transfer the strategies and rules to the workers and can manage knowledge. Communication is required to transfer knowledge form one medium to another medium.

Mangers with well develop communication skills and tools (verbal, written and electronic communication tools) are able to manage knowledge in an excellent manner in comparison to those who lack this skill and tools [14]. There is a very close association between effective communication, information sharing and knowledge exchange process. In every mode, from unspoken to obvious knowledge, communication is essential [15]. Consequently, communication is vital in knowledge management process, and a manager with excellent communication skills can creation, manage and sharing the knowledge effectively and efficiently. According to the literature review, we were hypothesized as below:

- H3: Professors' communication skills have an influence on knowledge management.

Our study explains how professors' capabilty skills, professors' attitudes and professors' communication skills on knowledge management. The conceptual model of factors on knowledge management is drawn in Figure 2.1.

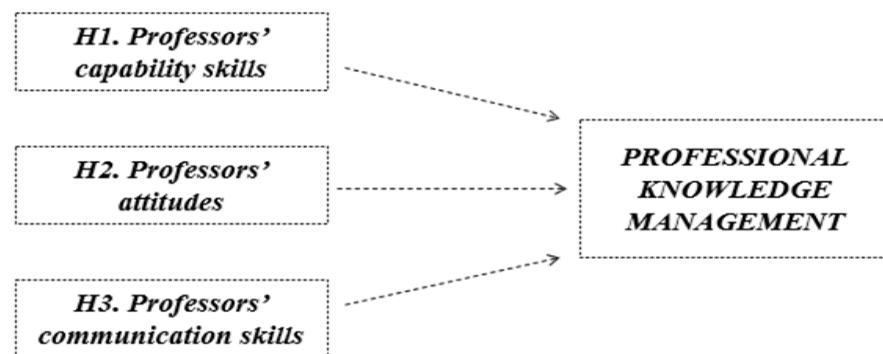


Figure 2.1: Conceptual models of factors on knowledge management

Source: Own diagram

RESEARCH METHODOLOGY

A typical approach of gathering primary data for the survey is the qualitative analysis of our research questionnaires. Following the discussion above, the following explanations explain why the questionnaire approach was chosen:

- The questionnaires of study were rofessors who work at Ikh Zasag International University, Mongolia.
- The questionnaires were collected by online /Google form/ and hand paper between Setember and October in 2024.
- The questionnaires were able to gather data in a short period of time.

We used Likert five-point scales to make it possible to discriminate opinions more finely, restrict for chosen more rather than other scales. Cooper (1998) described that most causal research relies on designed experimentation and simulation programs (Cooper, 1998). There are many software programs used to process data analysis. In this paper, SPSS and SmartPLS-

3.0 were chosen for their simplicity and completeness. The internal reliability of each factor was assessed using Cronbach’s alpha coefficient [16].

Thus, we were conducted to check the consistency of all related factors in the study based on Cronbach’s Alpha value. The Cronbach Alpha testing will be used as it is the most well accepted reliability test tool applied by social researchers. Cronbach (1946) identified that in Cronbach’s Alpha reliability analysis, the closer Cronbach’s Alpha to 1.0, the higher the internal consistency reliability (Cronbach, 1946). Cronbach’s measures of less than 0.6 is regarded as low, Acceptable reliability is within the range of 0.7, c. More than 0.8 reliability is considered good, We gathered research information from handwritten paper. There were 133 professors were participated Ikh Zasag International University, Mongolia in our study between September and November, 2024.

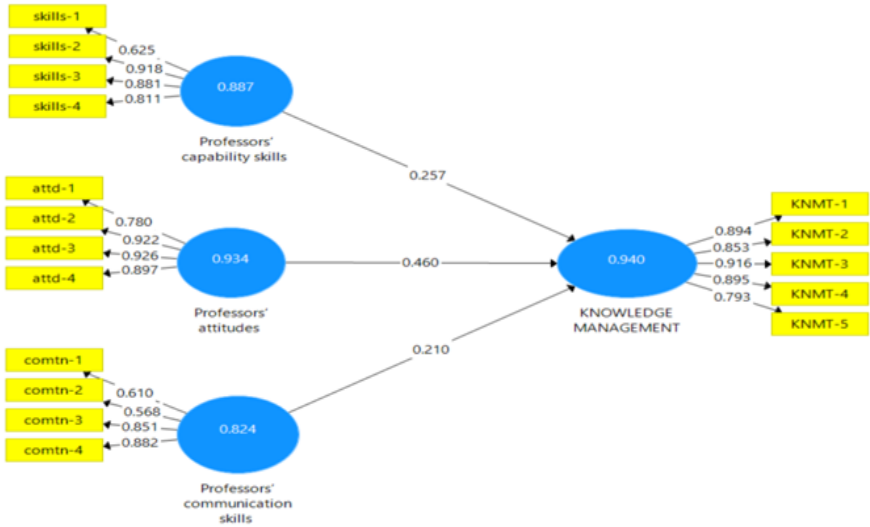


Figure 2.2: Results of Structure Analysis of Knowledge management (algorithm)
Noted: The result of study.

Table 1: List of items of professors’ professional skills for each Construct of respondents

Factor	item	Results of item	Cronbach’s alpha	Composite Reliability	Average variance Extracted
Professors’ capability skills	Skills-1	0.625	0.940	0.887	0.667
	Skills-2	0.914			
	Skills-3	0.881			
	Skills-4	0.811			

Notes: Skills-professors’ capability skills

In Table 1., Average Variance Extracted (AVE) metric is not explicitly provided in your data but is typically calculated to assess the amount of variance captured by the construct relative to the amount of variance due to measurement error. A common threshold for AVE is 0.50 or higher. Composite Reliability (CR), 0.887 is value indicates good reliability, as it exceeds the commonly accepted threshold of 0.70. Cronbach’s Alpha: 0.891 value also indicates high internal consistency among the items, as it is well above the acceptable threshold of 0.940.

Table 2: List of items of professors' attitudes for each Construct of respondents

Factor	item	Results of item	Cronbach's alpha	Composite Reliability	Average variance Extracted
Professors' attitudes	attd-1	0.780	0.904	0.934	0.780
	attd-2	0.922			
	attd-3	0.926			
	attd-4	0.897			

Notes:attd-professors' attitudes

In Table 2., Cronbach's Alpha, 0.904 indicates high internal consistency among the items, suggesting that the items reliably measure the same underlying construct. Composite Reliability (CR), 0.934 also indicates excellent reliability, exceeding the commonly accepted threshold of 0.70. Average Variance Extracted (AVE), 0.780 value suggests that a substantial amount of variance is captured by the construct, indicating good convergent validity.

Table 3: List of items of professors' communication skills for each Construct of respondents

Factor	item	Results of item	Average variance Extracted	Composite Reliability	Cronbach's alpha
rofessors' communication skills	Comtn-1	0.61	0.578	0.886	0.839
	Comtn-2	0.568			
	Comtn-3	0.851			
	Comtn-4	0.882			

Notes: Comtn -professors' communication skills

In Table 3., Average Variance Extracted (AVE): 0.578 value indicates that the construct captures a sufficient amount of variance relative to measurement error, meeting the common threshold of 0.50. Composite Reliability (CR): 0.886 value suggests good reliability, as it exceeds the acceptable threshold of 0.70, indicating that the items measure the same underlying construct effectively. Cronbach's Alpha: 0.839 value indicates high internal consistency among the items, suggesting that they reliably measure professors' communication skills.

Table 4: List of items of professors' knowledge management for each Construct of respondents

Factor	item	Results of item	Average variance Extracted	Composite Reliability	Cronbach's alpha
Professors' knowledge management	KNMT -1	0.893	0.759	0.940	0.920
	KNMT -2	0.855			
	KNMT -3	0.917			
	KNMT -4	0.895			
	KNMT -5	0.791			

Notes: KNMT- knowledge management

In Table 4., Average Variance Extracted (AVE): 0.759 value indicates that the construct captures a significant amount of variance relative to measurement error, exceeding the common threshold of 0.50. Composite Reliability (CR): 0.940 value suggests excellent reliability, as it is

well above the acceptable threshold of 0.70, indicating that the items effectively measure the same underlying construct. Cronbach's Alpha: 0.920 high value indicates very good internal consistency among the items, suggesting that they reliably measure professors' knowledge management capabilities.

Table 5: The results of R square and F square

THE FACTORS	R square	R square adjusted	Professors' knowledge management
Professors' knowledge management	0.717	0.692	
Professors' attitudes			0.296
Professors' communication skills			0.074
Professors' professional skills			0.035

Noted: The result of study.

Table 5, $R^2 = 0.717$: This indicates that approximately 71.7% of the variance in professors' knowledge management can be explained by the factors included in the model. This is a strong explanatory power, suggesting that the model is effective in capturing the influences on knowledge management in our study. Adjusted $R^2 = 0.692$: The adjusted value accounts for the number of predictors in the model and indicates that even after adjusting for the number of variables, about 69.2% of the variance is still explained. This slight decrease from R^2 suggests that the model maintains a good fit even with multiple predictors.

Professors' Attitudes, 0.296 it value indicates that approximately 29.6% of the variance in professors' attitudes can be explained by the factors considered in the analysis. While this is a moderate level of explanatory power, it suggests that there may be other significant factors influencing attitudes that are not captured in our study. Professors' Communication Skills, 0.074 it is only 7.4% of the variance explained, this indicates a weak relationship between the factors included in the model and professors' communication skills. This suggests that communication skills may be influenced by other variables not accounted for in this analysis. Professors' Professional Skills 0.035 is very low value indicates that only 3.5% of the variance in professional skills is explained by the model, suggesting that these skills are likely influenced by additional factors outside of those included in our study.

These findings suggest that further research may be needed to explore additional factors influencing professors' attitudes, communication skills, and professional skills to enhance understanding and improve these areas effectively within educational institutions.

CONCLUSIONS

The analysis of the data across four tables indicates strong reliability and validity of the constructs measured. Average Variance Extracted (AVE) values consistently exceed the 0.50 threshold, confirming that a significant portion of variance is captured by the constructs, with values ranging from 0.578 to 0.780. Composite Reliability (CR) scores also reflect high reliability, with values above 0.887, indicating that the items effectively measure the underlying constructs. Furthermore, Cronbach's Alpha values range from 0.839 to 0.920, suggesting excellent internal consistency among the items across all tables, reinforcing the reliability of the measures used in our study.

Future Research Directions

Overall, while our study offers significant insights into knowledge management among professors, it also highlights areas where additional research is necessary. Specifically, understanding the broader context and additional variables influencing professors' attitudes, communication skills, and professional skills will be crucial for enhancing these competencies within educational institutions. By identifying and incorporating these factors in future studies, we can develop more comprehensive strategies to support faculty development and improve educational outcomes.

References

1. Imran, A. (2019). Personality traits, individual innovativeness and satisfaction with life. *Journal of Innovation and Knowledge*, 38-46.
2. Singh, S. K. (2008). Role of leadership in knowledge management: A study. *Journal of Knowledge management*, 3-15.
3. Smuthy, P. (2012). The Relationship between Managerial knowledge and Managerial Effectiveness in a Managerial Simulation Game. *Estrategia Organizaion Czech Science Foundation*, 11-21.
4. Bayasgalan Tsogtsuren, E. D. (2021). The determinants of students' satisfaction on librarian service quality: The case of University of Internal Affairs, Mongolia. *International Journal of Innovation Scientific Research and Review*, 1931-1937.
5. Bednarikova, I. M. (2014). *Introduction to leadership communication*. Olomouci: ISBN 978-80-244-4304-1.
6. Bennis, W. (1990). *Managing the dream: leadership in the 21st century*. New York: New York.
7. Burns, J. (1978). *Leadership*. New York: Harper and Row, 141-168.
8. Cooper, H. (1998). *Synthesizing research: A guide for literature 3rd ed*. Oaks: CA: Sage Publications, Thousand.
9. Hencley, S. (1973). Situational behavioral approach to the study of educational leadership. *Leadership: The Science and Art Today*, 139-164.
10. Bayasgalan Tsogtsuren et al. (2021). The empirical study of employers' satisfaction: The case of Executive Leadership Academy, University of Internal Affairs, Mongolia. *International Journal of Asian Social Science*, 365-375.
11. Imran, A. (2019). Personality traits, individual innovativeness and satisfaction with life. *Journal of Innovation and Knowledge*, 38-46.
12. Janie, B. B. (2006). *Ethics in Organizations and Leadership*. Jones and Bartlett.
13. Mas-Machuca, M. (2014). The Role of Leadership: The Challenge of Knowledge Management and Learning in Knowledge-Intensive he Role of Leadership: The Challenge of Knowledge. *International Journal of Educational Leadership and Management*, 97-116.
14. Sharma, R. T. (n.d.). *Managerial Skills for Managers in the 21st Century*.
15. Singh, S. K. (2008). Role of leadership in knowledge management: A study. *Journal of Knowledge management*, 3-15.
16. Smuthy, P. (2012). The Relationship between Managerial Skills and Managerial Effectiveness in a Managerial Simulation Game. *Estrategia Organizaion Czech Science Foundation*, 11-21.

EVIDENCE OF OUR STUDY

