

Barriers to Knowledge Sharing Among Academics in Tertiary Institutions

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Abstract— *There has been a rising concern with regard to an inadequate level of knowledge sharing among the academicians in tertiary institutions across the globe. Scholars argue that improving academic research and quality of education at these institutions greatly depends on the level of knowledge sharing practices among them. Thus, it is important to explore the potential barriers to such knowledge sharing. Accordingly, this paper reviews pertinent literatures on barriers to knowledge sharing and knowledge withholding among academics in tertiary institutions.*

Keywords – *Knowledge Management, Knowledge Sharing, Knowledge Sharing Behavior, Academics, Tertiary Institution*

I. INTRODUCTION

There prevails a lack of understanding regarding how to scale up knowledge sharing in organizations because of the limited awareness of inhibiting factors of Knowledge Sharing Behaviors – KSBs¹. In fact, both organizations and individual employees do encounter barriers to knowledge sharing². However, barriers to KS reduce individuals' inclination to sharing their knowledge³. This is claimed that individual employees have well-justified grounds for not being inclined toward sharing their knowledge and accepting knowledge from others⁴.

Barriers to knowledge sharing prevail across the type of organizations and countries. For instance, reviewing 64 qualitative and quantitative studies published on various sectors and countries on Knowledge Management (KM) and Knowledge Sharing (KS) for the years of 2010–2015⁵, discover 'lack of trust' as the extensively studied and most significant KS barrier. The study identifies other important barriers such as organizational culture, lack of time, workload, lack of technology, lack of organizational commitment. However, the barriers to knowledge sharing are usually classified into (i) organizational factors, (ii) technical factors, and (iii) individual factors^{6,7,8,9,10,11,12}. For instance¹³, conducts a comprehensive review of general barriers to KS and identifies three dozen barriers under these three categories: (i) organizational barriers such as lack of transparent rewards and recognition and supportive organizational culture, (ii) individual barriers such as fear of lack of time, jeopardizing job security, and lack of trust, etc. and (iii) technological factors such as inadequate

information technology (IT), lack of technical support and immediate maintenance, and lack of training on IT.

II. LITERATURE REVIEW

Knowledge Sharing Barriers in Tertiary Institutions

Like other organizations, knowledge sharing barriers play significant role on the way to effective implementation of knowledge sharing in academic organizations¹⁴. In a study on faculty members of higher academic institutions in USA¹⁵ reveal four important KS barriers, such as bounded individual capacity, inadequate organizational capability, fear of knowledge revelation, and knowledge nature. Out of these barriers, fear of knowledge revelation appears to be the most dominant barrier to effectiveness KS. A study conducted on a Nigerian university by¹⁶ reveal that poor attitude towards KS and inadequate awareness about the importance of knowledge sharing are the main constraints of KS among faculty members. They¹⁷ review studies on knowledge sharing in HEIs across the countries and discover that trust, subjective norms, attitude, rewards & incentives, technology, and organizational climate are the major determinants of KSBs of academicians. In a study on UK academics¹⁸, point out that along with physical and psychological barriers, university's functional organizational structure, individualism, working in isolation, opposing ideologies and values of different departments or disciplines may appear as important barriers to KS. The author¹⁹ conducts a study on a sample of 784 academics of a HEI in South Africa and discovers several inhibiting factors towards KS such as an unwillingness among academics, time constraints, and a lack of management support. The author argues that perceiving 'knowledge is power' instead of 'knowledge sharing is power' may appear as a serious inhibitor of KS among academics in HEIs. Researchers²⁰ conduct a literature review of relevant articles and conference papers published between 2003 and 2014 on KS culture in HEIs of developing countries from the Middle East, Africa, and South America. The study reveals that knowledge sharing practices among the faculty members in the HEIs are inadequate. The study also identify several barriers such as lack of trust, absence of knowledge sharing culture, lack of time, lack of leadership support and commitment, inadequate communication mediums, lack of training on IT tools, unwillingness to use technology, job security, and national culture.

In fact, lack of knowledge sharing in universities and among the academics in universities are more dominant in developing countries²¹. In particular, HEIs in Asia encounter barriers to knowledge sharing similar to business organizations²². Authors²³ conduct a meta-analysis on KS among the academic institutions in Iran and show that factors promoting KS are not satisfactory in Iranian academic institutions. The study divides the KS barriers prevailing in their academic institutions into (i) human barriers (i.e., lack of trust, lack of time, lack of skill and capability, and knowledge hoarding), (ii) organizational barriers (i.e., unsuitable organizational structure, organizational culture, and lack of team work), and (iii) technological factors (i.e., low acquaintance with information technologies). In another study on the faculty members of state-run universities in Iran²⁴, conduct and discover that while 60.4% academic staff hold a positive attitude towards KS, only 25% activity participate in KS and the remaining 75% of the academic staff are passive about KS. The study identify a number of factors that inhibit KS among faculty members such as absence of KS culture, lack of infrastructure, lack of mutual trust, lack of time, inadequate interpersonal skill, and lack of interest, etcetera.

In the context of Malaysia²⁵, identify two main kinds of barriers (i.e., internal and external) that affect knowledge sharing among the university faculty members in Malaysia. Internal barriers represent individual barriers such as lack of trust, lack of rewards, lack of time, need for power, personal attitude, etc. On the other hand, external barriers represent organizational (e.g., organizational support, incentive system, management system, organizational culture) and technological barriers (e.g., information technology literacy and application). In a study conducted on academicians of 10 public universities in Malaysia²⁶, explore that faculty members engage in KS with their colleagues at moderate level. They argue that faculty members tend to restrict sharing their knowledge as they work independently, autonomously, and focus on individual academic objectives. In another study in Malaysia²⁷, explore that faculty members at HEIs recognize the significance of knowledge sharing. However, the study shows, KS barriers at varied degree prevail among the academicians of both public and private universities. In this study, the common KS hindering activities identified are lack of rewards and recognition, lack of trust with colleagues, and inadequacy of information technology. Using a mixed-method²⁸, conduct a study on technical college teachers in Malaysia and find that lack of management support, faculty members' own negative perceptions, and micro-politics are the main discouraging factors for sharing their knowledge with their colleagues. In a study on the role of KM on knowledge sharing among university faculty members in Malaysia²⁹, acknowledge that universities confront issues such as the absence of trust among its faculty members or insufficient incentives that may obstruct active sharing among the faculty members.

An early study, with a sample of 319, done by³⁰ examines twenty different factors that either promote or impede knowledge sharing among the academic staff of HEIs in Kuwait. Out of them, the study shows that, twelve factors are inhibitors such as concerns about job security,

lack of language competence, male attitudes, lack of out-group interaction, lack of rewards, lack of management support, inadequate technological, poor IT skills. They³¹ argue that university faculty members face numerous barriers while sharing their tacit knowledge among them. The study recognizes psychological factors (e.g., psychological distance, reputation, and trust) as the most significant among all the barriers. The authors explain a dilemma repenting psychological barriers to KS: (i) the faculty members with shortage of creative knowledge and self-confidence may worry about being underestimated, laughed, or marginalized. In contrast, knowledgeable faculty members may perceive the risks of losing position and uniqueness if their knowledge is transferred.

In a study conducted on faculty members of three public universities in Pakistan³², they explore that there exists a significant level of knowledge hoarding among the faculty members and find that the need for power and influence, an unsupportive culture, the need to impress superiors, gaining promotion, and the poor association between rewards and KSB are the main drivers of knowledge hoarding. In a study on KS among faculty members of a university of Sri Lanka³³, explore that lack of knowledge sharing culture, administrative responsibilities, lack of motivation, lack of recognition, lack of access to resources restrict sharing knowledge among the academics. In this study, 55.5%, 36.7%, 32%, 31.4% faculty members either strongly agree or agree that administrative responsibilities, lack of recognition, lack of knowledge sharing culture, lack of motivation respectively are the key KS barriers.

In a study done on KSBs of the university faculty in India, a neighboring country of Bangladesh³⁴, discover 12 different types of constraints toward knowledge sharing under four categories: (i) individual inclination (e.g., lack of interest), (ii) institutional support (e.g., lack of infrastructure, lack of rewards and incentives), (iii) institutional culture (e.g. lack of trust, lack of policy and priority, lack of communication, lack of collaboration, and lack of opportunities), and (iv) personal limitations (e.g., lack of time, lack of knowledge). Out of them, the important barriers include inadequate rewards and recognition, lack of supportive knowledge sharing culture, lack of interest, lack of collaborative environment, lack of knowledge, and lack of free and open communication are prominent. In an earlier study³⁵, shows that there exists unsupportive knowledge sharing culture in an Indian business school. In another study on faculty members of Indian universities³⁶, discover that culture of working alone, lack of motivation, and fear of being 'robbed' are significant barriers to knowledge diffusion. Relying on a qualitative study on the business schools of a public university in West Bengal of India³⁷, acknowledge that institutional bureaucratic mind-sets, lack of intra-organizational relationships (such as social networks and hall talks), considering knowledge as proprietary are vital KS barriers for the faculty members in the academic institutions.

Bangladesh as a developing country of Asia cannot be an exception as to encountering KS barriers by the faculty members of its HEIs. For instance, while studying KSBs of

faculty members in Bangladesh³⁸, review a number of barriers such as distant relationship among colleagues, lack of management initiative, lack of willingness, individual job security, academic promotion, lack of updated technology, etc. The study shows that faculty members are less inclined to KSBs. In addition, the factors that usually hinder knowledge sharing prevail in the country's HEIs, such as inadequate training, lack of infrastructure, lack of technology, lack of academic and research environment^{39,40,41}. In particular, most of the private universities are characterized by high faculty turnover indicating lack of organizational commitment, poor quality of work life, lack of flexibility & freedom, lack of rewards and benefits, lack of career development opportunities^{42,43,44}. Moreover, Bangladesh has cultural proximity to other South Asian countries such as India, Pakistan, and Sri Lanka^{45,46}. Therefore, the barriers that the faculty members encounter in these countries might be applicable for Bangladesh.

Knowledge Withholding among Academics in Higher Academic Institutions

One of the key inhibiting factors and undesirable counterpart of successful sharing of knowledge is knowledge withholding by the organizational members⁴⁷. Knowledge withholding is of two categories of behaviors: (i) knowledge hoarding and (ii) knowledge hiding^{48,49}. Knowledge hoarding refers to "the simple withholding of knowledge, which has not been requested by any specific individual"⁵⁰. Knowledge hoarding is usually less intentional or unintentional form of concealment^{51,52,53}. However, some scholars recognize knowledge hoarding as intentional^{54,55}. On the other hand, knowledge hiding refers to the intentional attempts of withholding or concealing one's knowledge which has been requested by others^{56,57}.

Knowledge hoarding is a natural human tendency^{58,59,60,61,62} and being doubtful about knowledge from others is also a natural phenomenon^{63,64}. From the standpoint of employees, knowledge hoarding is a rational choice as it facilitates protecting power, saving time, remaining important, and reducing job insecurity in the organization⁶⁵.

Like other organizations, knowledge hoarding is a common phenomenon among faculty members and is a big challenge on the way to effective knowledge sharing among them⁶⁶. Scholars admit that knowledge hoarding instead of knowledge sharing could be more widespread in academic institutions^{67,68,69}. For instance⁷⁰, discover that knowledge sharing intention is lower among the faculty members of private universities in Malaysia. They argue that the tendency to hoard knowledge in the private universities may be due to the lack of affective commitment, profit-seeking nature of organization, and greater competition among academics. They⁷¹ find in a study on public universities in Pakistan that faculty members hoard knowledge with their colleagues mainly due to gaining power, influence, authority, promotion, and employee favoritism. In another study on public universities in Pakistan⁷², argue that academicians hoard knowledge because of personal interests, powers, promotions opportunities, influences, authorities, and becoming superiors in eyes of the boss.

Researchers⁷³ argue that academics tend to hoard knowledge from their colleagues, especially when they possess unique, specialized, and important knowledge that does not belong to others. While studying KSB of faculty members of an Indian university⁷⁴ argue that opportunism and self-seeking behavior strongly contributes to knowledge hoarding.

Another frequently observed individual-barrier to knowledge sharing in contemporary organizations is knowledge hiding⁷⁵. However, studying knowledge hiding, especially in HEIs is almost overlooked by scholars⁷⁶. In fact, like knowledge hoarding, knowledge hiding may also prevail among academics in HEIs. For instance, in a study on 207 academics economic and business schools from both private and public sectors in Croatia⁷⁷, reveals that scholars partially hide knowledge and are more inclined to conceal tacit knowledge from their colleagues. The study shows that distrust with colleagues and personally traits are the main determining factors of knowledge hiding behavior. Moreover, pro-socially motivated academics are found to be less likely to hide knowledge. While studying knowledge hiding of academics of Turkish universities⁷⁸, discover that the most frequently used knowledge hiding behavior of academics is "evasive hiding" (the knowledge holder pretends that the knowledge will be shared), specially relating to "I agree to help him/her but never really intend to". However, overall knowledge hiding is not found to intensely prevail among academics.

III. CONCLUSION

From the above paragraphs, it can be inferred that there prevails numerous barriers that obstruct successful knowledge sharing among the academics of HEIs. Overcoming these barriers appears to be a big challenge on the way to promoting knowledge sharing behaviors. That's why HEIs should look for ways that will help overcome the barriers and enable the academics to actively engage in KSBs.

REFERENCES

- [1] Cleveland, S., & Ellis, T. J. (2015). *Rethinking knowledge sharing barriers: A content analysis of 103 studies*. International Journal of Knowledge Management, 11(1), 28-51.
- [2] Santosh, S., & Panda, S. (2016). *Sharing of knowledge among faculty in a mega open university*. Open Praxis, 8(3), 247-264.
- [3] Yeşil, S., & Hırlak, B. (2013). *An empirical investigation into the influence of knowledge sharing barriers on knowledge sharing and individual innovation behaviour*. International Journal of Knowledge Management (IJKM), 9(2), 38-61.
- [4] Husted, K., Michailova, S., Minbaeva, D. B., & Pedersen, T. (2012). *Knowledge-sharing hostility and governance mechanisms: An empirical test*. Journal of Knowledge Management, 16(5), 754-773.
- [5] Asrar-ul-Haq, M., & Anwar, S. (2016). *A systematic review of knowledge management and knowledge sharing: Trends, issues, and challenges*. Cogent Business & Management, 3(1), 1-17.

- [6] Kukko, M. (2013). *Knowledge sharing barriers of acquisitioned growth: A case study from a software company*. International Journal of Engineering Business Management, 5(8), 1-12.
- [7] Marouf, L. N., & Khalil, O. E. (2016). *The Influence of Individual Characteristics on Knowledge Sharing Practices, Enablers, and Barriers in a Project Management Context Business Intelligence: Concepts, Methodologies, Tools, and Applications* (pp. 1419-1444): IGI Global.
- [8] Razmerita, L., Razmerita, L., Kirchner, K., Kirchner, K., Nielsen, P., & Nielsen, P. (2016). *What factors influence knowledge sharing in organizations? A social dilemma perspective of social media communication*. Journal of Knowledge Management, 20(6), 1225-1246.
- [9] Riege, A. (2005). *Three-dozen knowledge-sharing barriers managers must consider*. Journal of Knowledge Management, 9(3), 18-35.
- [10] Santosh, S., & Panda, S. (2016). *Sharing of Knowledge among Faculty in a Mega Open University*. Open Praxis, 8(3), 247-264.
- [11] Sharma, B., & Singh, M. (2016). *Modeling the Metrics of Individual, Organizational and Technological Knowledge Sharing Barriers: An Analytical Network Process Approach Business Intelligence: Concepts, Methodologies, Tools, and Applications* (pp. 1906-1920): IGI Global.
- [12] Yeşil, S., & Hırlak, B. (2013). *An empirical investigation into the influence of knowledge sharing barriers on knowledge sharing and individual innovation behaviour*. International Journal of Knowledge Management (IJKM), 9(2), 38-61.
- [13] Riege, A. (2005). *Three-dozen knowledge-sharing barriers managers must consider*. Journal of Knowledge Management, 9(3), 18-35.
- [14] Yeşil, S., & Hırlak, B. (2013). *An empirical investigation into the influence of knowledge sharing barriers on knowledge sharing and individual innovation behaviour*. International Journal of Knowledge Management (IJKM), 9(2), 38-61.
- [15] Khalil, O. E., & Shea, T. (2012). *Knowledge sharing barriers and effectiveness at a higher education institution*. International Journal of Knowledge Management (IJKM), 8(2), 43-64.
- [16] Lawal, W. O., Agboola, I. O., Aderibigbe, N. A., Owolabi, K. A., & Bakare, O. D. (2015). *Knowledge sharing among academic staff in Nigerian university of agriculture: A survey*. International Journal of Information Library and Society, 3(1), 25-32.
- [17] Kurdi, O. F. A. A., Ghoneim, A., & Roubaie, A. A. (2016). *Knowledge sharing culture in higher education: Critical literature review*, In A. Y. A. Al-Hawaj & E. H. Twizell (Eds.), *Higher education in the twenty-first century II* (pp. 75-88). Leiden: CRC Press.
- [18] Fullwood, R., Rowley, J., & Delbridge, R. (2013). *Knowledge sharing amongst academics in UK universities*. Journal of Knowledge Management, 17(1), 123-136.
- [19] Buckley, S. (2012). *Higher education and knowledge sharing: from ivory tower to twenty-first century*. Innovations in Education and Teaching International, 49(3), 333-344.
- [20] Ali, O. F., Gohneim, A., & Roubaie, A. A. (2014). *Knowledge Sharing Culture in Higher Education Institutions: Critical Literature Review*. Paper presented at the European, Mediterranean & Middle Eastern Conference on Information Systems, Doha, Qatar.
- [21] Alsuraihi, M. D., Yaghi, K., & Nassuora, A. B. (2016). *Knowledge sharing practices among Saudi academics: A case study of King Abdulaziz University*. Journal of Current Research in Science, 4(1), 63-68.
- [22] Cheng, M.-Y., Ho, J. S.-Y., & Lau, P. M. (2009). *Knowledge sharing in academic institutions: a study of Multimedia University Malaysia*. Electronic Journal of Knowledge Management, 7(3), 313-324.
- [23] Dokhtesmati, M., & Bousari, R. G. (2013). *Knowledge Sharing in Iranian academic institutions: Meta-analysis approach*. Procedia-Social and Behavioral Sciences, 73, 383-387.
- [24] Chalak, A. M., Ziaei, S., & Nafei, R. (2014). *A survey of knowledge sharing among the faculty members of Iranian Library and Information Science (Lis) Departments*. Library Philosophy and Practice (e-journal). <http://digitalcommons.unl.edu/libphilprac/1063>
- [25] Norulkamar, U., & Hatamleh, A. (2014). *A Review of Knowledge Sharing Barriers among Academic Staff-A Malaysian Perspective*. Sains Humanika, 2(2), 87-91.
- [26] Ramayah, T., Yeap, J. A., & Ignatius, J. (2013). *An empirical inquiry on knowledge sharing among academicians in higher learning institutions*. Minerva, 51(2), 131-154.
- [27] Chong, C. W., Yuen, Y. Y., & Gan, G. C. (2014). *Knowledge sharing of academic staff: A comparison between private and public universities in Malaysia*. Library Review, 63(3), 203-223.
- [28] Tahir, L. M., Musah, M. B., Abdullah, A. H., Musta'amal, A. H., & Abdullah, M. H. A. (2016). *Technical college teachers sharing their knowledge: does leadership, institutional factors or barriers predict their practices?* Educational Studies, 42(5), 465-492.
- [29] Tan, C. N.-L. (2016). *Enhancing knowledge sharing and research collaboration among academics: the role of knowledge management*. Higher Education, 71(4), 525-556.
- [30] Said Ali, M. M. (2009). *Cultural influences on knowledge sharing in Kuwaiti Higher education institution: A case study approach*. © Maha M. Said Ali.
- [31] Yu, D., & Zhou, R. (2015). *Tacit Knowledge Sharing Modes of University Teachers from the Perspectives of Psychological Risk and Value*. International Journal of Higher Education, 4(2), 214-224.
- [32] Muqadas, F., Muqadas, F., Rehman, M., Rehman, M., Aslam, U., Aslam, U. Ur-Rahman (2017). *Exploring the challenges, trends and issues for knowledge sharing: A study on employees in public sector universities*. VINE Journal of Information and Knowledge Management Systems, 47(1), 2-15.
- [33] Ranasinghe, S., & Gamini, L. (2008). *Knowledge sharing among academics in an ODL context: The case of the Open University of Sri Lanka*. VISTAS Journal of Humanities and Social Sciences, 4, 123-138.
- [34] Santosh, S., & Panda, S. (2016). *Sharing of Knowledge among Faculty in a Mega Open University*. Open Praxis, 8(3), 247-264.
- [35] Basu, B., & Sengupta, K. (2007). *Assessing success factors of knowledge management initiatives of academic institutions—a case of an Indian business school*. The Electronic Journal of Knowledge Management, 5(3), 273-282.
- [36] Vashisth, R., Kumar, R., & Chandra, A. (2010). *Barriers and facilitators to knowledge management: Evidence from selected Indian universities*. IUP Journal of Knowledge Management, 8(4), 7-24.
- [37] Brahma, S., & Mishra S. (2016). *Knowledge management orientation of B-School processes: A case research*. Parikalpana: KIIT Journal of Management, 12(2), 35-51
- [38] Islam, M. A., Ikeda, M., & Islam, M. M. (2013). *Knowledge sharing behaviour influences: A study of Information Science and Library Management faculties in Bangladesh*. IFLA journal, 39(3), 221-234.

- [39] Asian Development Bank. (2015). *Innovative strategies in higher education for accelerated human development in South Asia: Bangladesh*. Metro Manila. Asian Development Bank.
- [40] Hossain, M. A., Salam, M. A., & Shilpi, F. (2016). *Readiness and challenges of using information and communications technology (ICT) in higher education of Bangladesh*. The Online Journal of New Horizons in Education, 6(1), 123-132.
- [41] Kitamura, Y. (2015). *Expansion and quality in Bangladesh*. *International Higher Education*, (44), 23-24. <http://ejournals.bc.edu/ojs/index.php/ihe/article/view/7910/7061>
- [42] Joarder, M. H., & Sharif, M. Y. (2011). *The role of HRM practices in predicting faculty turnover intention: empirical evidence from private universities in Bangladesh*. The South East Asian Journal of Management, 5(2), 159-178.
- [43] Mahbub, F. (2013-14). *Career satisfaction among female faculty members of private universities in Dhaka city: An evaluation of quality of work life*. The Journal of Business in Developing Nations, 13, 1-29.
- [44] Tabassum, A., Rahman, T., & Jahan, K. (2012). *An Evaluation of the quality of work life: a study of the faculty members of private universities in Bangladesh*. ABAC Journal, 32(3), 36-57.
- [45] Ahmed, Z. S. (2016). *Regionalism and regional security in South Asia: The role of SAARC*. Oxon: Routledge
- [46] Nurunnabi, M. (2016). *The role of the state and accounting transparency: IFRS implementation in developing countries*. Oxon: Routledge
- [47] Kang, S.-W. (2016). *Knowledge withholding: psychological hindrance to the innovation diffusion within an organisation*. Knowledge Management Research & Practice, 14(1), 144-149.
- [48] Holten, A.-L., Holten, A.-L., Robert Hancock, G., Robert Hancock, G., Persson, R., Persson, R., & Høgh, A. (2016). *Knowledge hoarding: antecedent or consequent of negative acts? The mediating role of trust and justice*. Journal of Knowledge Management, 20(2), 215-229.
- [49] Kang, S.-W. (2015). *Knowledge sharing climate as a mediator between servant leadership and team performance*. doi: 10.2139/ssrn.2658096
- [50] Holten, A.-L., Holten, A.-L., Robert Hancock, G., Robert Hancock, G., Persson, R., Persson, R., & Høgh, A. (2016). *Knowledge hoarding: antecedent or consequent of negative acts? The mediating role of trust and justice*. Journal of Knowledge Management, 20(2), 215-229.
- [51] Geofroy, Z., & Evans, M. M. (2017). *Are Emotionally Intelligent Employees Less Likely to Hide Their Knowledge?* Knowledge and process management. doi: 10.1002/kpm.1532
- [52] Holten, A.-L., Holten, A.-L., Robert Hancock, G., Robert Hancock, G., Persson, R., Persson, R., & Høgh, A. (2016). *Knowledge hoarding: antecedent or consequent of negative acts? The mediating role of trust and justice*. Journal of Knowledge Management, 20(2), 215-229.
- [53] Kang, S.-W. (2016). *Knowledge withholding: psychological hindrance to the innovation diffusion within an organisation*. Knowledge Management Research & Practice, 14(1), 144-149.
- [54] Evans, J. M., Hendron, M. G., & Oldroyd, J. B. (2015). *Withholding the ace: the individual-and unit-level performance effects of self-reported and perceived knowledge hoarding*. Organization Science, 26(2), 494-510.
- [55] Serenko, A., Bontis, N., & Hull, E. (2016). *An application of the knowledge management maturity model: the case of credit unions*. Knowledge Management Research & Practice, 14(3), 338-352.
- [56] Serenko, A., Bontis, N., & Hull, E. (2016). *An application of the knowledge management maturity model: the case of credit unions*. Knowledge Management Research & Practice, 14(3), 338-352.
- [57] Zhao, H., & Xia, Q. (2016). *An examination of the curvilinear relationship between workplace ostracism and knowledge hoarding*. International Journal of Hospitality Management, 59, 84-94.
- [58] Alajmi, B. M., Marouf, L. N., & Chaudhry, A. S. (2016). *Knowledge management for healthcare: Investigating practices that drive performance*. Journal of Information & Knowledge Management, 15(2), 1-17.
- [59] Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston: Harvard Business Press.
- [60] Kang, S.-W. (2015). *Knowledge sharing climate as a mediator between servant leadership and team performance*. doi: 10.2139/ssrn.2658096
- [61] Ramayah, T., Yeap, J. A., & Ignatius, J. (2013). *An empirical inquiry on knowledge sharing among academicians in higher learning institutions*. Minerva, 51(2), 131-154.
- [62] Song, C., Park, K. R., & Kang, S.-W. (2015). *Servant leadership and team performance: The mediating role of knowledge-sharing climate*. Social Behavior and Personality, 43(10), 1749-1760.
- [63] Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston: Harvard Business Press.
- [64] Ramayah, T., Yeap, J. A., & Ignatius, J. (2013). *An empirical inquiry on knowledge sharing among academicians in higher learning institutions*. Minerva, 51(2), 131-154.
- [65] Razmerita, L., Razmerita, L., Kirchner, K., Kirchner, K., Nielsen, P., & Nielsen, P. (2016). *What factors influence knowledge sharing in organizations? A social dilemma perspective of social media communication*. Journal of Knowledge Management, 20(6), 1225-1246.
- [66] Chong, C. W., Yuen, Y. Y., & Gan, G. C. (2014). *Knowledge sharing of academic staff: A comparison between private and public universities in Malaysia*. Library Review, 63(3), 203-223.
- [67] Cheng, M.-Y., Ho, J. S.-Y., & Lau, P. M. (2009). *Knowledge sharing in academic institutions: a study of Multimedia University Malaysia*. Electronic Journal of Knowledge Management, 7(3), 313-324.
- [68] Muqadas, F., Muqadas, F., Rehman, M., Rehman, M., Aslam, U., Aslam, U., & Ur-Rahman, U. (2017). *Exploring the challenges, trends and issues for knowledge sharing: A study on employees in public sector universities*. VINE Journal of Information and Knowledge Management Systems, 47(1), 2-15.
- [69] Ramayah, T., Yeap, J. A., & Ignatius, J. (2013). *An empirical inquiry on knowledge sharing among academicians in higher learning institutions*. Minerva, 51(2), 131-154.
- [70] Goh, S. K., & Sandhu, M. S. (2013). *Knowledge sharing among Malaysian academics: Influence of affective commitment and trust*. The Electronic Journal of Knowledge Management, 11(1), 38-48.
- [71] Muqadas, F., Muqadas, F., Rehman, M., Rehman, M., Aslam, U., Aslam, U., & Ur-Rahman, U. (2017). *Exploring the challenges, trends and issues for knowledge sharing: A study on employees in public sector universities*. VINE Journal of Information and Knowledge Management Systems, 47(1), 2-15.
- [72] Muqadas, F., Ilyas, M., & Aslam, U. (2016). *Antecedents of knowledge sharing and its impact on employees' creativity and work performance*. Pakistan Business Review, 18(3), 655-674.

- [73] Ramayah, T., Yeap, J. A., & Ignatius, J. (2013). *An empirical inquiry on knowledge sharing among academicians in higher learning institutions*. Minerva, 51(2), 131-154.
- [74] Santosh, S., & Panda, S. (2016). *Sharing of Knowledge among Faculty in a Mega Open University*. Open Praxis, 8(3), 247-264.
- [75] Serenko, A., Serenko, A., Bontis, N., & Bontis, N. (2016). *Understanding counterproductive knowledge behavior: antecedents and consequences of intra-organizational knowledge hiding*. Journal of Knowledge Management, 20(6), 1199-1224.
- [76] Demirkasimoglu, N. (2016). *Knowledge Hiding in Academia: Is Personality a Key Factor?* International Journal of Higher Education, 5(1), 128-140.
- [77] Hernaus, T., Vokić, N. P., Aleksić, A., Černe, M., & Škerlavaj, M. (2015). *Knowledge Hiding in the Academia: What, Where, and How Often?* Paper presented at the 17th European Congress of Work and Organizational Psychology.
- [78] Demirkasimoglu, N. (2016). *Knowledge Hiding in Academia: Is Personality a Key Factor?* International Journal of Higher Education, 5(1), 128-140.