# KNOWLEDGE MANAGEMENT PRACTICES IN HIGHER EDUCATION INSTITUTIONS - A COMPARATIVE STUDY

## Nawaz N., Durst S., A. Hariharasudan, Shamugia Z.[*]

**Abstract**: The purpose of this paper is to study Knowledge Management (KM) practices in a number of higher education institutions from Europe, Asia, and Gulf Cooperation Council (GCC) countries, as reported by the respective faculty members. The KM practices assessed were Knowledge Perception (KP), Knowledge Gathering (KG), Knowledge Creation (KC), Knowledge Sharing (KS), Knowledge Diffusion (KD), and Knowledge Retention (KR) and compared across the three regions to understand the similarities and differences in KM practices. Data was collected through a structured questionnaire and distributed online among faculty members of various universities in Europe, Asia and GCC countries. To draw meaningful inferences, scales for reliability, one-way ANOVA and T-test were used to analyze, compare and interpret the data. The results indicate that there are no significant differences among the higher education institutions regarding KP, KC, KS, and KD. There is, however, a significant difference with regards to KG and KR. The findings of the study help to serve as input to higher education institutions from three different regions in developing best practices of KM for improving performance.

**Key words:** Knowledge perception, knowledge gathering, knowledge creation, knowledge sharing, knowledge diffusion, knowledge retention and higher education

## Introduction

Knowledge Management (KM) is a procedure that enables institutions to discover, select, scatter, arrange and move significant data and ability vital for exercises, for example, critical thinking, dynamic learning and key arranging (Khanal & Mathur, 2020). KM plays a unique tole in the achievement of Higher Education Institutions (HEIs) primarily through successful arranging, sorting out, observing and organizing the KM resources identified with intellectual capital. In this way, KM could enhance information sharing and by and large execution (Hossain et al., 2013).

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The study of (Omogeafe et al., 2014) reveals that HEIs have been using information for years to improve the efficiency of academic services and effectiveness of academic programs). Besides, and even more important, HEIs are not only places where knowledge is created and transferred but also places that are highly dependent on knowledge resources and exposed to knowledge attrition. Therefore, to handle these challenges, a systematic approach to KM is needed in HEIs. KM deals with the human mind as the way it creates, uses, shares and disseminates the tools of knowledge management, and according to the sensitivity of the way of people, it has to work, behave and think (Nasiruzzaman et al., 2013). The universities have to enhance their competitive advantage through communities of practices to protect the KM practices (Dei & van der Walt, 2020). Moreover, KM practices have empowered more in HEIs through knowledge management enablers (Kumaravel, V., Vikkraman, 2018).

The study aim is to bring out the difference, if any, among the three regions, namely, Europe, Asia, and Gulf Cooperation Council (GCC) Countries for KM practices in HEIs. More precisely, the authors consider the KM practices such as knowledge perception, knowledge gathering, knowledge creation, knowledge sharing, knowledge diffusion and knowledge retention of HEIs in selected universities. To date, most of the studies regarding knowledge management in HEIs have focused only on single countries. For example, (Tan & Md. Noor, 2013) has shown that the variation in KM practices of universities from Nigeria is directed to differences in organizational performance. Whereas at the universities of Pakistan, both knowledge management infrastructure (involving human resources and culture) and knowledge management process are significant predictors of performance (Jamil & Lodhi, 2015). HEIs have required conducting the theoretical and practical implementations of KM practices among the faculty, staff of administration and professional of information. Therefore, the study has proposed the conceptual framework to reach successful knowledge management impletions in South Asian countries (Kanwal et al., 2019).

Malaysian Institution of Higher Learning (IHL) depends on the proper procuring of knowledge and practice, strong leadership, robust of information and communication technology infrastructure (ICT) (Nasiruzzaman et al., 2013) and value-based organization to gain important goals. HEIs have to establish KM practices that can provide innovations in leadership, knowledge sharing and acquiring technology used to reach their competitive edge. To design best knowledge environment in the Indian HEIs (i.e. Business schools), strategic visionary leadership and commitment, technological advancement, organizational communication, and culture need to be adopted within the organizations (Vashisth & Mehta, 2013). Cross-country studies are limited. The authors of the present study argue that their understanding of KM practices in HEIs would benefit from more intensive research at the cross-country level to develop their understanding of KM in HEIs in general and as well as the effectiveness of different KM practices in

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particular. Therefore, the current study proposes KM practices in selected universities of Europe, Asia and GCC countries.

Against this backdrop, the aim is to study KM practices in HEIs. More precisely, the present study attempts to compare the KM practices across the three selected regions to highlight differences and similarities.

## Literature Review

The purpose of this section is to substantiate the literature review with regards to existing KM practices in higher education to be asked and discussed based on the findings. Thereby, existing literature until December 01, 2020, is covered.

Knowledge management is a systematic process and practice of acquiring, sharing, capturing and reusing of productive knowledge, where ever it resides, to enhance learning and performance in organizations (OECD, 2004). The study of (Ramanujan & Kesh, 2004) has broadly seen the information related to the capacity of institutions to accumulate, share, arrange and break down the information on people and gatherings, over the organization. Those who are pursuing KM continuously will choose value-based intellectual capital in their organization.

HEIs have a tremendous opportunity to develop initiatives to share knowledge to achieve business targets. The knowledge-based structure, which is appropriate for KM in a learning situation especially for online distance education  (Ubon & Kimble, 2002), and they have identified the following elements academic groups, collaborations and trust in sharing knowledge in between the students. Effective knowledge management enhances the decision-making process, decreases time in designing curriculum and research portfolios, and it also increases academic and administrative performance.

The university system has to understand the demand of industry to achieve its goal. For that reason, HEIs have to adopt the following principles, e-learning, distance / open learning and outcome approach to teaching pedagogy, and it enhances the performance of the KM practices. In another piece of work, (Chaudhry & Sivakamasundari, 2002), examined the perception of teachers about knowledge sharing in their schools. It concluded that socialization does not only facilitate the opportunity for knowledge sharing, but it also shares the tacit knowledge among faculty members.

The success of knowledge management in higher education provides confidence in the processes of enhancing individual, motivation, organizational ability, and opportunities to learn, gain knowledge and perform in a manner that delivers positive outcomes (Laal, 2011). The study of Al-Omari et al. (2013) discovered that the faculty community in humanities education use KM practices than those who are working in science education. (BakirHj Yaakub, 2014) has viewed five cases of studies to identify the KM practices in Malaysian Higher Learning Institutions (MHLI). The study has also found that MHLI KM practices are not yet stand alone without the support of top management.

The study involving 300 interviews (Alhammad et al., 2009) with university staff from Jordan academics show less interest in sharing knowledge than the administrators in Jordanian Universities. As per the (Mavodza & Ngulube, 2012), the study suggested that the implementation of a motivation program is useful to create and use knowledge among the various disciplines of the Metropolitan College of New York.

In a case study of Cranfield and Taylor (Cranfield & Taylor, 2008), they have identified seven HEIs in the United Kingdom. The discussed categories of the study are (i) characteristics academic faculty (ii) framework and universities characteristics that mainly focus on management structure, culture and style. They found that the HEIs involved in significant changes over the years which had an impact on their responding queries with external forces via knowledge management, lean management, balanced scorecard and process improvement.

In the context of Romania's HEIs, (Calin Florin Baban, 2013) conducted the study, which has concluded that institutions have to give more priority on knowledge sharing, teaching and research activities. The research of (Sharma, 2016) explains that KM practices in higher education improve their operational adequacy, seriousness, and quality.

## Research methods

### Hypotheses development

The previous section discusses the existing theory and empirical results concerning the knowledge perception, knowledge gathering, knowledge creation, knowledge sharing, knowledge diffusion and knowledge retention practices in higher education, and it forms the basis for the hypothesis for the present study.

KM practices are compared between the public and private universities, and there is no significant difference in the areas of knowledge process, technology, culture and measurement (Mazhar & Akhtar, 2016). However, the knowledge sharing, discovery, collaboration and integrated knowledge management technologies develop the HEIs performance (Mário Pinto, 2014), (Al-Kurdi et al., 2018) and (Lubega et al., 2011). Furthermore, there is much possibility for public universities to reach their key strategic enablers by having KM practices (Devi Ramachandran et al., 2013). The following hypothesis has been formulated and tested to meet the aim, as mentioned above of the study.

H1: There is a similarity between the factors of KM practices used by the faculty members in selected universities in the Europe, Gulf Cooperation Council & Asia regions.

### Data collection and sample

Primary data were collected by administering a structured online questionnaire. The questionnaire was divided from Section A to G. Section A was intended to gather personal information about the respondents and the universities where they were representing at the moment of the survey. Section B was interested in the

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practices of knowledge gathering in universities. Section C looked into the universities attitude towards knowledge creation. Section D was designed to gather information on knowledge sharing. Section E addressed knowledge perception. Section F was interested in knowledge diffusion and section G knowledge retention.

Each of the above mentioned six factors is made up of various items (see Table 1) and explained in measures part. For example, knowledge perception is classified into eight items labeled from KP1 to KP8, knowledge gathering is classified into eleven items labeled from KG1 to KG11, knowledge creation is classified into twelve items labeled from KC1 to KC12, knowledge sharing is classified into eighteen items labeled from KS1 to KS 18, knowledge diffusion is classified into thirteen items labeled from KD1 to KD13, and finally, the knowledge retention is classified into eight items labeled from KR1 to KR8. For instance, the total score for KM practices obtained the score from KP1 to KP8, and it is represented by the variable KP. Similarly, knowledge gathering (KG), knowledge creation (KC), knowledge sharing (KS), knowledge diffusion (KD) and knowledge retention (KR) is computed. Therefore, the mean score is considered for comparison for the study. Additionally, to get first-hand information, researchers also personally contacted the respondents and ascertained their opinions.

The respondents were selected by adopting the purposive sampling method. Purposive sampling is a strategy for the most part used in the emotional investigation for the conspicuous evidence and assurance of information-rich cases for the best usage of compelled resources. It includes distinguishing and choosing singular/gatherings of people that are particularly proficient or experienced with a marvel of intrigue. Purposive sampling can be utilized with various information-gathering methods. Indeed, in both qualitative and quantitative research, the sample can be chosen purposively. Purposive sampling can give reliable and hearty information. The quality of this inspecting technique lies in its purposeful predisposition.

The researchers made a plan to collect data from HEIs from faculty about KM practices functionality from different parts of the countries, and the data is collected from 2019 December to June 2020. The researchers circulated a questionnaire among the faculty in different countries. By taking advantage of the authors' networks (using LinkedIn), the questionnaire was disseminated. In total, 130 respondents filled the questionnaire, while 120 respondents filled the questionnaires completely. The researchers got responses from different countries, and they classified them based on their geographical location. The countries are Bahrain, Bangladesh, Finland, India, Indonesia, Italy, Kuwait, Lithuania, Pakistan, Qatar, Sweden and the United Arab Emirates. The latter formed the basis for analysis, moreover, all selected countries taken as sample 10 and put-together as a Total 120. The demographic variables Mean and SD are as follows Gender Mean -- 1.34 & SD 0.48, Name of the Discipline Mean -- 2.32 & SD 1.62, Academic Rank Mean -- 2.93 & SD 100 and Experience in years Mean -- 1.51 & SD 0.73.

*Measures*

In order to measure the KM practices, a five-point Likert scale was used (1-strongly disagree to 5 -- strongly agree). (Ramachandran et al., 2009), (Khyzer Bin Dost et al., 2018) and (Badawy & Magdy, 2015). The measurements instruments were constructed and extracted a more comprehensive questionnaire based on the items of interest for this study.

### Table 1. Conceptual framework of constructs

| No | Constructs | Variables References |
|---|---|---|
| 1 | Knowledge Perception (KP) | KP1 and KP2 from Mario Pinto (2014), KP3 from Balagué et al. (2016), KP4 and KP5 from Al-Omari et al. (2013), KP6 from Pradesh (2012), and KP7 and KP8 from Makambe & Pellissier (2015). |
| 2 | Knowledge Gathering (KG) | KG1 from Mario Pinto (2014), KG2, KG9 and KG10 from Mario Pinto (2014) and Balagué et al. (2016), KG4, KG5 and KG6 from Laal (2011), KG7 from BakirHj Yaakub (2014), KG8 from BakirHj Yaakub (2014) and KG11 from Makambe & Pellissier (2015). |
| 3 | Knowledge Creation (KC) | KC1 from Mario Pinto (2014), KC2, KC6, KC7 and KC8, from Laal (2011), KC3, KC9 KC11 and KC12 from Al-Omari et al. (2013), KC4 from Makambe & Pellissier (2015) and KC5 and KC10 from BakirHj Yaakub (2014). |
| 4 | Knowledge Sharing (KS) | KS1, KS10, KS11, KS13, KS14, KS15, KS17 and KS18 from Al-Omari et al. (2013), KS2, KS3, KS4, KS5, KS6, KS7, KS8 and KS9 from BakirHj Yaakub (2014) KS14 and KS16 from Mario Pinto (2014) and KS12 from BakirHj Yaakub (2014), Ishrat & Rahman (2020) & Gatarik (2019). |
| 5 | Knowledge Diffusion (KD) | KD1, KD5 and KD13 from Mario Pinto (2014), KD2, KD3, KD4, KD10, KD8, KD9 and KD11 from Pradesh (2012), KD6 and KD7 from Makambe & Pellissier (2015) and KD12 from Pietruszka-ortyl (2020) |
| 6 | Knowledge Retention (KR) | KR1 and KR8 from Makambe & Pellissier (2015), KR2, KR4 and KR5 from (BakirHj Yaakub (2014), KR3 and KR7 from Makambe & Pellissier (2015) and KR6 from Yaakub et al. (2014). |

## Statistical Techniques Used

The collected data have been processed and analyzed by using descriptive statistics such as means and standard deviations. Scales for reliability, one-way ANOVA and T-test were used to analyze, compare and interpret the data. Further, it draws

meaningful inferences. The analysis was conducted using the statistical package for the social sciences, IBM SPSS, Version 26.

Before conducting the analysis, the authors tested reliability. The test was performed on each of the six factors, namely, knowledge perception, knowledge sharing, knowledge creation, knowledge diffusion, knowledge gathering and knowledge retention and all put together 70 items. The values of Cronbach alpha are generally accepted threshold knowledge perception 0.75, knowledge creation 0.77, knowledge sharing 0.76, knowledge diffusion 0.86, knowledge gathering 0.75 and knowledge retention 0.84 (George & Mallery, 1995). The results presented a high degree of reliability.

For the purpose of the present study, the authors compared knowledge perception, knowledge gathering, knowledge creation, knowledge sharing, knowledge diffusion, and knowledge retention across the selected three regions. To compare, for example, the knowledge gathering score for Europe, Asia and GCC, an analysis of variance (ANOVA) is conducted.

The present study examines the differences in the KM practices among the selected three regions, namely, Europe, GCC and Asia. The authors aimed to bring out the differences, if any, among the selected three different types of organizations in their practices of knowledge management. The findings are discussed in the following part of the paper.

## Results

The scores of means for each factor (i.e. knowledge perception, knowledge creation, knowledge sharing, knowledge diffusion, knowledge gathering and knowledge retention) of KM practices are compared for the selected three regions on the basis of the responses collected from faculty members. A comparative means score of the six factors is calculated for the sample respondents and is presented in Figure 1.
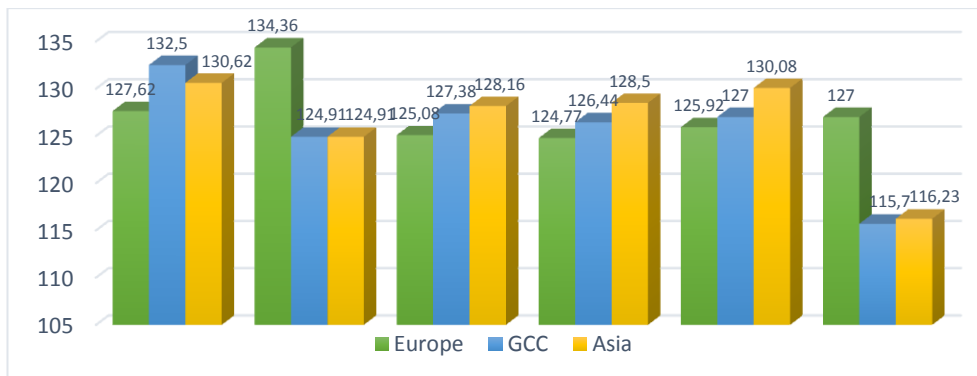


**Figure 1: Comparison means score for selected three regions on various factors of KM practices**
Source: Data collected through primary data

The authors were followed a very systematic process to show comparative group means of the regions, in detail. First, the authors calculated the individual country mean, after that they have put all means values as per the classification of the means of the region, i.e. Europe, GCC and Asia. In the second step, all-region means score values kept as per the knowledge management practices, i.e. knowledge perception, knowledge gathering, knowledge sharing, knowledge diffusion and knowledge retention. In the third step, after adding of all country means score values, the mean score values were generated as per the selected region, i.e. Europe GCC & Asia. In the fourth step, Europe of knowledge perception group mean score is 127.62, GCC group mean score is 132,50, and Asia group mean score is 130.62, likewise in knowledge-gathering Europe group mean score is 134.36, GCC group mean is score 124.91 and Asia group mean score is 124.91, in knowledge creation Europe group mean is score 125.08, GCC group mean score is 127.38 and Asia group mean score is 128.50, in knowledge sharing Europe group mean score is 124.77, GCC group mean score is 126.44, and Asia group mean score is 128.50, concerning knowledge diffusion aspect Europe group mean score is 125.92, GCC group mean score is 127.00, and Asia group mean score is 130.08, with regards knowledge retention Europe group mean score is 127.00, GCC group mean score is 115.70, and Asia group mean is score 116.23

Finally, the authors analysed the group values and found the variations between the groups mean score value with regards to knowledge perception, in knowledge perception area GCC group mean score is more than Europe and Asian regions. Likewise, knowledge-gathering Europe mean score is more than GCC & Asian regions. In knowledge creation, Asia region mean score is more than other regions; in knowledge sharing, again Asia region mean score is more compare to Europe and GCC regions; in the phase of knowledge diffusion, Asia region mean score is more than other selected regions; and finally, in knowledge retention, Europe mean score is more than GCC & Asia regions.

The study carried out through analysis of variance, to find out whether the mean score for each of the six factors of knowledge management is the same across all the selected three regions.

Similarly, the hypothesis could be composed for the rest of the variables of KM practices. The results of the analysis of variance are summarized in Table 2.

After observation of the results of Table 2, it directs that there is no significant difference in the mean scores of the three selected regions with regards to the knowledge perception, knowledge creation, knowledge sharing and knowledge diffusion. There is a significant difference found only in the case of knowledge gathering and knowledge retention. Therefore, for further analysis, only two factors are considered across the three selected regions.

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**Table 2. Results of one-way ANOVA for various KM practices**

| S.no | Dimension | F statistics | Conclusion |
|---|---|---|---|
| 1 | Knowledge Perception | 0.892 | AYNDM |
| 2 | Knowledge Gathering | 2.528 | RNDM |
| 3 | Knowledge Creation | 0.608 | AYNDM |
| 4 | Knowledge Sharing | 1.052 | AYNDM |
| 5 | Knowledge Diffusion | 1.254 | AYNDM |
| 6 | Knowledge Retention | 3.417 | RNDM |

Note: AYNDM: Accept hypotheses of no difference between means; RNDM: Reject hypotheses of no difference between means

First, the means score of knowledge gathering was compared across the three means score regions, namely, Europe, GCC and Asia. Table 2 summarizes the results of the independent sample t-test for the grouping as mentioned above concerning the knowledge gathering.

Table 2 results direct that there is a critical distinction in the factor of knowledge gathering for the district pair Europe and Asia. Further, it is higher on account of Europe than Asia. The example score demonstrates that Europe is on the top, trailed by Asia and GCC. It reveals that there is no noteworthy distinction in Europe and GCC and GCC and Asia. To know the explanations behind this important difference between the mean score for the different things, it comprises that the knowledge gathering has been attempted utilizing an autonomous example, t-test. Table 3 sums up the results.

**Table 3. Results of independent sample t-test for dimension knowledge gathering for region groups**

| S.no | Region pair | t | Significant at 5 per cent | Degrees of freedom |
|---|---|---|---|---|
| 1 | Europe vs GCC | -1.248 | Not significant | 39 |
| 2 | GCC vs Asia | 0.508 | Not significant | 39 |
| 3 | Europe vs Asia | 1.774 | * | 39 |

Note: *Indicates significance as indicated by one-tailed t statistic at 5 % level

Table 4 indicates that eight items, namely, KG1, KG2, KG3, KG4, KG5, KG8, KG9 and KG10 are not significantly different between Europe and Asia. However, for KG6, KG7 and KG 11, there is a statistical difference between the region pair. The results direct that the Europe HEIs facilitate technology for faculty members to collaborate with other universities better than Asian HEIs and faculty members are satisfied with the tools and technology provided by European universities for knowledge sharing than Asia HEIs. Further, the faculty members of European universities use networked-based desktop computers for discussion and sharing information by using tools such as instant messaging, net meeting etc., to share knowledge with the colleagues at work better than Asia region universities.

**Table 4. Results of independent sample t-test for comparing the means of various items of knowledge gathering for Europe and Asia regions**

| S.no | Items | T statistics for comparing the mean difference between the region pair | Significance at 5 per cent | Degrees of freedom |
|---|---|---|---|---|
| 1 | Colleagues of you can be relied upon if you say anything they will do (KG1). | 0.528 | Not significant | 78 |
| 2 | You depend on the management when you are in challenges at your specific job, and they attempt to get you out (KG2). | 0.442 | Not significant | 78 |
| 3 | Your college includes resources in the administration choices and mulls over any innovative ideas (KG3). | 0.442 | Not significant | 78 |
| 4 | You have effortless access to expert technical assistance in-house (KG4). | 1.050 | Not significant | 78 |
| 5 | Your university knowledge portal has processes for filtering knowledge. (KG5) | 0.927 | Not significant | 78 |
| 6 | Your university's technology facilitates faculty members to collaborate with other universities. (KG6) | 2.010 | * | 78 |
| 7 | Academic staff are happy with the devices and innovation given by your college to the reason for knowledge sharing (KG7). | 1.137 | * | 78 |
| 8 | You make plans to take advantage of university seminars/conferences to update your skills and expertise continuously. (KG8) | 0.287 | Not significant | 78 |
| 9 | You are dynamic in utilizing the resources shared by others in the information systems without contributing anything to the frameworks (KG9). | 1.098 | Not significant | 78 |
| 10 | University collects feedback about your academic activities (KG10). | 0.522 | Not significant | 78 |

| 11 | Faculty members use networked-based desktop computers (for discussion, information share by using tools such as instant messaging, net meeting, etc.,) to share knowledge with their colleagues at work (KG11). | 2.475 | * | 78 |
|----|----|----|----|----|

Note: *Indicates significance as indicated by one-tailed t statistic at 5 % level

In the next step, the authors analyzed factor knowledge retention to examine whether there is any significant difference in the mean score for this factor across the region pair Europe, GCC and Asia. In Table 5, the results are summarized.

**Table 5. Results of independent sample t-test for dimension knowledge retention for region groups**

| S.no | Region pair | t | Significant at 5 per cent | Degrees of freedom |
|----|----|----|----|----|
| 1 | Europe vs GCC | 2.7805 | * | 39 |
| 2 | GCC vs Asia | -1.0676 | Not significant | 39 |
| 3 | Europe vs Asia | 2.14591 | * | 39 |

Note: *Indicates significance as indicated by one-tailed t statistic at 5 percent level.

After careful examination of Table 5, it shows that there is a distinction in the mean score regarding the factor of information maintenance in all the selected three area sets. It is intriguing to realize that the mean score of Europe is altogether higher than in Asia and GCC. To be sure, Europe scores the most elevated information maintenance, followed by Asia and GCC. To know the purpose behind this noteworthy between the mean score for the different things, information maintenance has been attempted utilizing an autonomous example T-test—table 6 and Table 7 sum up the results.

The result of Table 6 shows that five items, namely, KR1, KR2, KR3, KR4 and KG5, do not have a significant difference between Europe and GCC. However, for KR6, KR7 and KR8, there is a statistical difference between the region pair.

**Table 6. Results of independent sample t-test for comparing the means of various items of knowledge retention for Europe and GCC regions**

| S.no | Items | T statistics for comparing the mean difference between the region pair | Significance at 5 per cent | Degrees of freedom |
|----|----|----|----|----|
| 1 | I have confidence that my university will always treat me fairly (KR1). | 1.2896 | Not significant | 78 |
| 2 | Adequate activities, rewards and recognitions, are set up to keep the faculty members / researchers persuaded (KR2). | 1.4396 | Not significant | 78 |

| 3 | Promotions of the faculty are based on merit cum seniority (KR3). | 0.1030 | Not significant | 78 |
|---|---|---|---|---|
| 4 | Any new developments on the campus that are related to your job motivate in updating your knowledge (KR4). | 0.8835 | Not significant | 78 |
| 5 | My university rewards motivate me to develop team spirit (KR5). | 0.5197 | Not significant | 78 |
| 6 | My university provides direction to improve my knowledge (KR6). | 2.7871 | * | 78 |
| 7 | My university values and promotes a culture of knowledge sharing (KR7). | 2.1287 | * | 78 |
| 8 | Tools and technologies of my university can be easily accessed by the faculty (KR8). | 2.9623 | * | 78 |

Note: *Indicates significance as indicated by one-tailed t statistic at 5 per cent level

Table 6 indicates the universities located in Europe and how they provide direction to improve faculty knowledge better than GCC. It is interesting to see that European universities apparently promote better values and a culture of knowledge sharing among faculty members than the GCC universities. Further, the findings suggest that the faculty members can more easily access tools and technologies at European universities than by their counterparts at GCC universities.

**Table 7. Results of independent sample t-test for comparing the means of various items of knowledge retention for Europe and Asia regions**

| S.no | Items | T statistics for comparing the mean difference between the region pair | Significance at 5 per cent | Degrees of freedom |
|---|---|---|---|---|
| 1 | I have confidence that my university always treats me fairly (KR1). | 0.4244 | Not significant | 78 |
| 2 | Adequate activities, rewards and recognitions, are set up to keep the faculty members/ researchers persuaded. (KR2) | 0.2051 | Not significant | 78 |
| 3 | Promotions of the faculty are based on merit cum seniority (KR3). | 1.7526 | * | 78 |
| 4 | Any new developments on the campus that are related to your job motivate in updating my | 0.2991 | Not significant | 78 |

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| | knowledge (KR4). | | | |
| 5 | My university rewards motivate me to develop team spirit (KR5). | 0.0054 | Not significant | 78 |
| 6 | My university provides direction to improve my knowledge (KR6). | 2.5430 | * | 78 |
| 7 | My university values and promotes a culture of knowledge sharing (KR7). | 2.2389 | * | 78 |
| 8 | Tools and technologies of my university can be easily accessed by the faculty (KR8). | 2.3651 | * | 78 |

Note: *Indicates significance as indicated by one-tailed t statistic at 5 per cent level

Table 7 indicates that the mean score of KR3, KR6, KR7 and KR8 is statistically significant in the pair of Europe and Asia. The means score revealed that the European universities provide promotions based on merit cum seniority of the faculty while comparing to the Asia region. In another item of knowledge retention, faculty gets a clear direction to improve their knowledge in Europe universities better than Asia based universities. The European universities keep concerned for promoting values and culture of knowledge sharing better than the universities of Asia countries. Further, tools and technologies are very easily accessible to faculty in the involved universities from Europe, and it is better than the selected universities of Asia.

**Discussion**

Knowledge management in higher education has received greater attention from scholars in recent years. Little prior research has focused on the different KM practices in higher education, and particularly regarding cross-country differences. The present study has analyzed the involvement of faculty members in KM practices of HEIs, providing some clues to improving KM practices in universities across the globe. This, in turn, underlines that universities should involve the academic members in all KM practices for strengthening the effectiveness and quality of universities. This may lead to best practices in KM and as a result, facilitate the existence of high quality in the entire education system (Rahman, Chairman, and Zubairi-lecturer 2012).

The findings reveal similarities regarding the KM practices of knowledge perception, knowledge creation, knowledge diffusion and knowledge sharing, but differences in knowledge gathering and knowledge retention. Most of them are related to technology in higher education institutes, which underline the benefit of establishing integrated knowledge management systems. In details, the study found that in three selected regions, tools and technologies are easily accessible to the faculty for collaboration with other universities for sharing knowledge via net

meetings, instant messages. It is encouraging to the faculty members of the selected universities to have integrated knowledge management systems, which will benefit more to the faculty and universities as well.

To support the application of these systems as well as individual KM practices, universities would need to identify supporting factors that create and maintain an appropriate culture and develop and implement strategies and policies. In such suggestions, they lead to improve knowledge management benefiting the internal and external stakeholders of universities. Further, the strategies should have to meet merit cum seniority-based policies, especially in Asian universities.

## Conclusion

The purpose of the papers is to understand the knowledge management practices among the faculties in the selecting universities of Bahrain, Bangladesh, Finland, India, Indonesia, Italy, Kuwait, Lithuania, Pakistan, Qatar, Sweden and United Arab Emirates. The self-administer questionnaire was used to gather appropriate information and analyzed the data using statistical methods. The results have shown the knowledge management practices in various universities are not much different in knowledge management practices. Moreover, the faculty members are practising well enough in knowledge perception, knowledge gathering, knowledge creation, Knowledge sharing, knowledge diffusion and knowledge retention n various higher education institution in selected countries. The study concludes that to enhance knowledge management practices, the universities require to incorporate more information technology-based practices so that it will take the universities to meet the demands and there is the possibility to overcome future difficult situation like Covid-19 pandemic.

As with any research, this study has limitations. The scope of the present study is limited to cover only KM practices of the surveyed universities willing to participate in the study. Another aspect is that data collection happened through a structured questionnaire, which exposes the findings of the study to the disadvantages of this method. Besides, the present study has addressed universities in its entirety and not considered likely differences with regards to KM practices due to the faculty, type of university etc. Thus, there is considerable potential for further research. By increasing the sample size, the findings would become more meaningful and robust. Thus, by including larger sample size and more countries, our understanding of KM practices in HEIs could be developed further. Furthermore, future research could also focus on individual KM practices in higher education, to determine common practice and also show similarities and differences between universities from different countries. Future research could also study the impact on advance technologies like artificial intelligence, robotics and blockchain on KM practices in HEIs.

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# PRAKTYKI ZARZĄDZANIA WIEDZĄ W SZKOLNICTWACH WYŻSZYCH - BADANIE PORÓWNAWCZE

**Streszczenie:** Celem tego artykułu jest zbadanie praktyk zarządzania wiedzą (KM) w szeregu instytucji szkolnictwa wyższego z krajów Europy, Azji i Rady Współpracy Zatoki Perskiej (GCC), zgodnie z raportami odpowiednich członków wydziału. Ocenione praktyki KM obejmowały postrzeganie wiedzy (KP), gromadzenie wiedzy (KG), tworzenie wiedzy (KC), dzielenie się wiedzą (KS), rozpowszechnianie wiedzy (KD) i zatrzymywanie wiedzy (KR) i porównano je w trzech regionach, aby zrozumieć podobieństwa i różnice w praktykach KM. Dane zebrano za pomocą ustrukturyzowanego kwestionariusza i rozprowadzono online wśród wykładowców różnych uniwersytetów w Europie, Azji i krajach GCC. Aby wyciągnąć znaczące wnioski, do analizy, porównania i interpretacji danych wykorzystano skale niezawodności, jednokierunkową ANOVA i test T. Wyniki wskazują, że nie ma istotnych różnic między uczelniami pod względem KP, KC, KS i KD. Istnieje jednak znacząca różnica w odniesieniu do KG i KR. Wyniki badania pomagają instytucjom szkolnictwa wyższego z trzech różnych regionów opracować najlepsze praktyki KM w celu poprawy wyników.

**Słowa kluczowe:** Percepcja wiedzy, gromadzenie wiedzy, tworzenie wiedzy, dzielenie się wiedzą, rozpowszechnianie wiedzy, zatrzymywanie wiedzy i szkolnictwo wyższe

## 高校知识管理实践的比较研究。

**关键词**：本文的目的是研究来自欧洲，亚洲和海湾合作委员会(GCC)国家的许多高等教育机构的知识管理(KM)实践，这是由各自的教职人员报告的。评估的知识管理实践为知识知觉(KP)，知识收集(KG)，知识创造(KC)，知识共享(KS)，知识扩散(KD)和知识保留(KR)，并在三个地区进行比较以了解知识管理实践的异同。数据是通过结构化的问卷收集的，并在欧洲，亚洲和海湾合作委员会国家的各大学的教师之间在线分发。为了得出有意义的推论，使用了可靠性量表，单向方差分析和T检验来分析，比较和解释数据。结果表明，高等教育机构之间在KP, KC, KS和KD方面没有显着差异。但是，KG和KR之间存在显着差异。这项研究的结果有助于为三个不同地区的高等教育机构提供意见，以开发知识管理的最佳实践以提高绩效。

**关键词**：知识感知，知识收集，知识创造，知识共享，知识传播，知识保留和高等教育