Knowledge Sharing for Enhanced Performance in the HEIs Using a Conceptual Framework

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Knowledge sharing is an essential management practice that provides a sustainable competitive advantage in a vibrant and dynamic economy (Kaur, 2019). To achieve an enhanced performance in the Higher Education Institutions (HEIs), it is essential to make sure that the teaching and learning system is determined by knowledge sharing approach (Nair and Munusami, 2019). The Higher Education Institutions are required to consider how they could better share knowledge from experts who have it to learners who need to get the best of such expertise (Darling-Hammond et al., 2019). This study examines the knowledge sharing behaviour among academics and leaners in the HEIs by providing a better understanding for their enhanced performance. This is aimed to comprehend the individual acts of knowledge creation and the collective efforts of knowledge sharing adapted in the HEIs towards continuous improvement. A literature review is carried out to propose a conceptual framework of knowledge sharing for enhanced performance in the HEIs.

Keywords: knowledge sharing, higher education, learning organization, training and development

INTRODUCTION

Knowledge sharing plays a vibrant role in the higher education institutions (HEIs) for enhanced performance, particularly through effective planning, organising, monitoring and coordinating the knowledge-based assets related to intellectual capital. Thus, the HEIs would develop knowledge sharing mechanism for overall enhanced performance (Sanchis et al., 2020). HEIs are considered to be knowledge-intensive learning organisations (Cheng, 2020) and knowledge-creating institutions, and they are also considered to be in the knowledge sharing business (Hislop, 2018). The HEIs create new knowledge through research and enterprise activates to disseminate knowledge through teaching and learning, research and development, communication, dissemination of science and create jobs through spin-offs (Massingham, 2019).

One of the key objectives of this study is to contribute to the existing research on knowledge sharing in the higher education institutions specifically enhancing their performance. Given the scarcity of research on this important issue, exploring more opportunities for additional research on this subject is a major aspiration of this study. Hence, through using a profiling approach, this research paper is trying to highlight the most frequently researched elements of knowledge sharing in the higher education institutions. The findings of this research are used for development of a conceptual framework to describe knowledge sharing practices in the HEIs. This is particularly getting important due to the current COVID-19 pandemic situation, when there is a greater need for such conceptual framework of knowledge sharing for enhanced performance in the HEIs.

LITERATURE REVIEW

The UK Higher Education Framework

The higher education institutions vary in scope, magnitude, profile, mission, philosophy, history, values and existence. The HEIs is continuously going through reformation in UK as it is undergone major change, particularly over the last four decades since 1979 (Bolton, 2019). This constant change has now influenced the amount and process of public funding, which has realised new eminent research domain such as knowledge sharing whereas presenting fundamental research stipulations into the HEIs' funding and management of the education system (Res Eng, 2018). There is already a major cut in the public funding for the research in the HEIs, where universities are affected differently by such cuts, some quite substantially (Hall, 2018). This has increased the focus of academics on enhanced efficiencies within the HEIs for economic, social, operations and administrative functionalities. This has brought significant pressure for academics to welcome emerging technologies in teaching and learning while focusing new changes to bring in practice within the institutional general management and academic leadership in order to encourage devolved academic culture (Jarvis et al., 2020).

The Learning Organisations – The HEIs

Knowledge sharing in the HEIs is now required to be strategically imbedded within the education system as a mechanism to achieve enhanced operations management in processes, systems, structures and cultures. To achieve organisational learning in the HEIs, this is necessary to use an improved approach in creating, sharing and using organisational knowledge, which is significant for decision making and competitiveness (Kreitner and Kinicki, 2012). According to Moore (2013), the most important resource that can be leveraged to create and sustain competitiveness in the HEIs is now knowledge. According to Watanabe and Senoo (2009), knowledge sharing is the process of acquiring, storing, disseminating and applying knowledge both inside and outside the organisation. The effective use of knowledge sharing helps organisations to improve the quality of their decision making and thus, to reduce costs and increase efficiency and monitoring capabilities (Aureli et al., 2019).

It is evident that organisational learning is about the effective processing, clarification of, and response to, information both inside and outside the HEIs. According to Burns and Griffith (2018), the technical information may be quantitative or qualitative, but is generally explicit and in the public domain. The social perspective on organisational learning on the other hand focuses on the way people make sense of their experiences at work. These experiences may derive from explicit sources such as financial information, or they may be derived from tacit sources, such as the 'feel' that skilled craftsperson has, or the intuition possessed by a skilled strategist (Omona and Weide, 2010).

Knowledge Sharing in HEIs

It is believed that the Knowledge sharing is an essential management practice that provides a sustainable competitive advantage in a vibrant and dynamic economy (Kaur, 2019). To gain a competitive knowledge advantage in the Higher Education Institutions (HEIs), it is indispensable to make sure that the teaching and learning systems is focused on knowledge sharing approach. The latest development has witnessed the emergence of a new economy where knowledge has become a valuable resource and

intellectual asset (Abdur- Rafiu, 2015). The dynamics of knowledge-based economy necessitates the acquisition and management of knowledge sharing rapidly (Bolisani and Bratianu, 2018). The UK Higher Education Institutions are required to consider how they could better share knowledge from experts who have it to learners who need to get the best out of such expertise (Darling-Hammond et al., 2019).

This research study aims to investigate the application of knowledge sharing in the HEIs for enhanced performance in particular. For this reason, the purposes of this study is precisely using a lens to investigate knowledge sharing in the HEIs. For instance, the Stankosky's Knowledge Management four pillars structure framework is contemplated for the enterprise learning i.e. leadership, organization, technology and learning. The Stankosky's model is studied as a systemic and holistic framework to investigate the perceptions and practices of knowledge sharing within the HEIs. However, the HEIs are already engaged in Davenport and Prusak's (2000) view on knowledge workers, who presents knowledge as deriving from information as information derives from data. Davenport has similarly promoted knowledge sharing for information to be transformed into Knowledge, which requires human intervention hence humans apply their skills, ability, experience, know-how, values and culture via some transformation (Chu, 2016).

ICTs for Knowledge Sharing in HEIs

To ensure the success of knowledge sharing in higher education, numerous studies are reviewed to identify the role of ICT as one of the critical factors for enhancing knowledge sharing within the HEIs (Buckley and Jakovljevic, 2012; Schwarzman, 2019). The role of ICTs is deliberated as a fundamental component for knowledge sharing in the higher education sector because information technology can enable HEIs to exploit knowledge from information and data. Knowledge is also produced and composed in the higher education during the course of teaching and learning as well as carrying out researches and outreach services (Babi and Nedelko, 2020). In analysing knowledge work, for examples, Skyrme (2004) points out that ICT support knowledge processes and workers through providing ready access to structured information, improved communications and interaction with fellow knowledge workers. The knowledge sharing happens either individually or in groups whereas a group decision support systems (DSSs) facilitate learning and decision-making processes (Cortellazzo et al., 2020).

Almeida and Sequeira (2018) further argue that ICT should be seen as a tool to assist the process of knowledge sharing in the higher education institutions (HEIs). In this study, the theoretical and conceptual frameworks are associated to embracing and diffusing of ICTs in the HEIs for pedagogy excellence to achieve enhanced learning environment (Inamorato, 2019). According to Marshall (2019) the HEIs' teaching and learning environment is required to embrace technology for knowledge sharing in order to develop variations in the fundamental principles of teaching and learning as far as the education sector performance is concerned. This means the ultimate underlying principles of understanding HEIs' teaching characteristics and motives for embracing innovations in learning, which ensure to achieve the key characteristics such as benefits, costs, quality, scope and the associated learning curves (Lea, 2015).

RESEARCH METHOD CONTEXTUAL

The conceptual research is defined as a methodology where a research study is carried out by observing, examining and evaluating the existing literature (Ravitch and Carl, 2015). The theoretical and conceptual research enlightens the pathway of a research to establish a research base with unwavering hypothetical perceptions. The overall aim of the theoretical and conceptual research methodology is to make research findings sufficient, expressive and adequate to the theoretical constructs in order to ensure an acceptable research connection (Adom et al., 2018).

In this study the researchers create conceptual framework that includes a philosophical and methodological model to help design their work. Based on the literature review, a conceptual framework was developed for analysing the performance of higher education institutions. A conceptual framework defines a structure within the design that is developed and gives a general presentation based on previously established observations stemming from the reviewed literature. The narrative reviews present a variety of

analyses about the existing literature to offer a relevant research study, which can be used in a number of pragmatic studies exist in a domain (Tranfield et al., 2003).

Conceptual Framework Development

This research paper emphasises the necessity to better understand the HEIs' knowledge sharing activities that are being supported by ICTs in a knowledge-led environment. In creating an academic discipline, there has to be a widely accepted theoretical construct, arrived at by undergoing scholarly scientific investigation and accompanying rigor (Stankosky, 2005). In order to achieve the set objectives of this study, the theoretical frameworks are reviewed to enterprise learning such as the Nonaka and Takeuchi's (1996) SECI model for knowledge creation, the Stankosky's (2005) four pillar model for knowledge management, the task-technology fit theory for staff performance (1995) and the APQC's (2007) five-step knowledge maturity model for advancing work (Howard and Rose, 2019; APQC, 2020; Bratianu et al., 2020) to form the basis for this study. Hence, in this study, the researchers carried out a literature review on knowledge sharing and knowledge management for developing a conceptual framework whereas specifically selecting the analysis of four-pillar model and its application for knowledge sharing in the higher education institutions (HEIs).

FIGURE 1
PRELIMINARY CONCEPTUAL MODEL FOR KNOWLEDGE SHARING IN UK HEIs (2020)
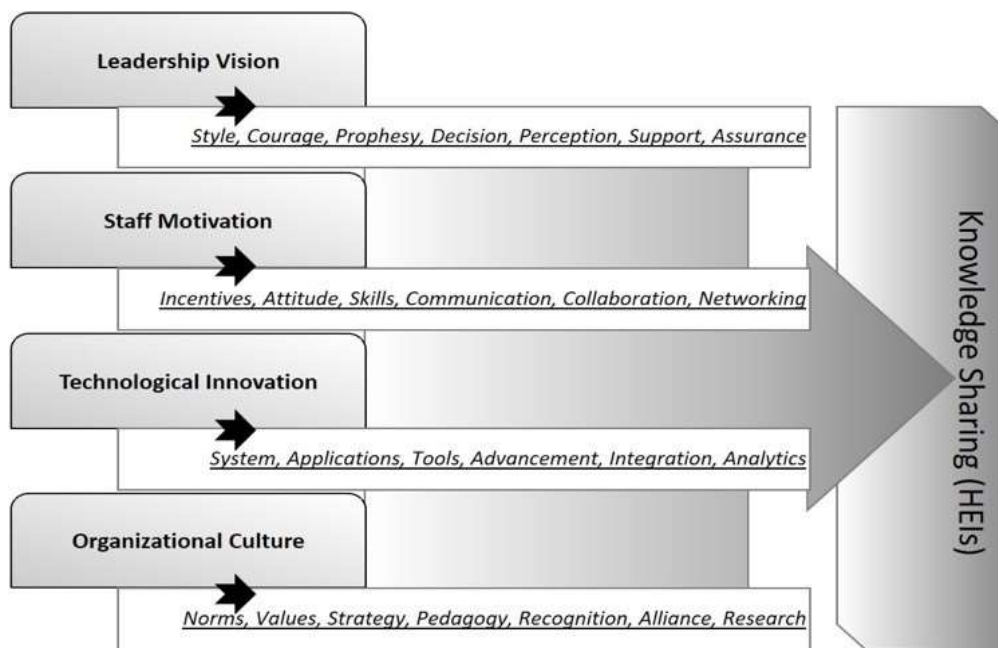
Based on the four-pillar model, Kim and Lee (2006) developed a model consisting of managerial culture, teaching structure and ICT based innovation to examine the knowledge sharing capabilities amongst academics and across various organisations. It is therefore believed that performance-based reward systems, inventive pedagogy and ICT applications are focusing on end-users and social networks as key variables affecting knowledge sharing activities. Based on the theories developed and derived from the literature, a preliminary conceptual model is designed and presented in the above graphical illustration (FIGURE 1).

Research Propositions

The key variables included in the above preliminary conceptual model include the organisational, individual, group and technical factors to identify various supportive and preventative factors contributing

to the knowledge sharing performance in the UK HEIs. The leadership style, staff motivation, technological innovation and organisational culture are considered as the key variable for knowledge sharing in this model. The data are collected from the research methodological approach to address the major hypotheses as shown in the following table (TABLE 1).

TABLE 1
RESEARCH MAJOR HYPOTHESES FOR KNOWLEDGE SHARING IN HEIs

Hypothesis 1	The leadership vision has a significant impact on knowledge sharing activities in UK HEIs
Hypothesis 2	The academic staff's motivation directly impacts knowledge sharing in HEIs
Hypothesis 3	There is a positive correlation between ICT technologies and knowledge sharing in UK HEIs
Hypothesis 4	The HEIs' Organisational culture affects knowledge sharing practices within the organisation

The initial conceptual framework is further analysed by enabling four major identified variables along with the set of hypotheses for knowledge sharing practices in the HEIs that provides a base to support the four key elements of the proposed framework while the subsequent result is exemplified for the knowledge management approach within HEIs. The above graphic (Figure 1) shows the illustrative depiction of the proposed conceptual framework whereas the subsequent sections provide an explanation of the roles and contributions of each of the element in the development of the proposed conceptual framework.

The data analysis determines that there are some alternatives to determine a knowledge sharing strategy within the HEIs, for-example (i) choose knowledge sharing strategy by looking at a variety of strategies, not depend on one strategy, (ii) defines the purposes of knowledge sharing, (iii) pay attention on knowledge creator, adviser and leader in knowledge sharing, (iv) and determine the knowledge sharing strategy (Dalkir and Beaulieu, 2018). The key types of technological tools I practice in the HEIs in UK today are required to enhance the teaching and learning practices while providing a knowledge sharing solution. Some of the key solutions include:
- *Document Management Systems (DMS),*
- *Learning Management Systems (LMS),*
- *Content Relationship Management System (CRMS),*
- *Decision Support System,*
- *Social Communication (SC)*

However, knowledge sharing means more than simply transmitting and receiving knowledge. This study is directed to examine the success of knowledge sharing using ICT tools in order to identify key factors that influence the knowledge sharing behaviour among academics. It is anticipated that the result of this study will provide valuable evidence for the HEIs to shape an education system that would better serve the purpose of knowledge sharing in universities. The education progressions and sharing of knowledge in the UK higher education sector constitutes the key components to design a conceptual framework that consists of a rational set of organised knowledge-creating activities to achieve enhanced higher education goals.

The education progression in the HEIs may be viewed as a time-ordered sequence of interconnected events that define the entire experience of an organisation as it flows in an education system (Tremblay, et al., 2012). The higher education key processes usually cut across functional boundaries and the end result is knowledge sharing among users who can be within the HEIs. The contemporary teaching methods in the higher education are confronted with various challenges to fit the education in the current knowledge economy with excellence, resulting in turn into a financial and structural crisis. This is predominantly factual with respect to virtual learning and other internet-based knowledge delivery services. The online

education is referred to the use of web- technologies to create and deliver a collaborative learning environment, which includes a broad array of instruction and information resources and solutions with the aim of enhancing the performance among academics (Singh and Mohan, 2019).

The leadership vision, academics willingness, technological advancement and the organisational culture are crucial in order to success knowledge sharing in the HEIs, which require creating a situation and conception where innovative ways to teaching and learning are stimulated, inspired and accepted at all levels through continuous reformation in the higher education. To achieve success in the higher education, it is important that the key practices must be refined in context of new learning methods supported by emerging technologies. This approach is needed to provide knowledge development and transfer for delivering academic services and learning, teaching life-cycle management, institutional development and enterprise management and support, in more productive ways. The essential components for effective knowledge sharing, which validate the hypotheses in the higher education systems, illustrated below (FIGURE 2).

FIGURE 2
COMPONENTS FOR KNOWLEDGE SHARING IN HEIs (2020)
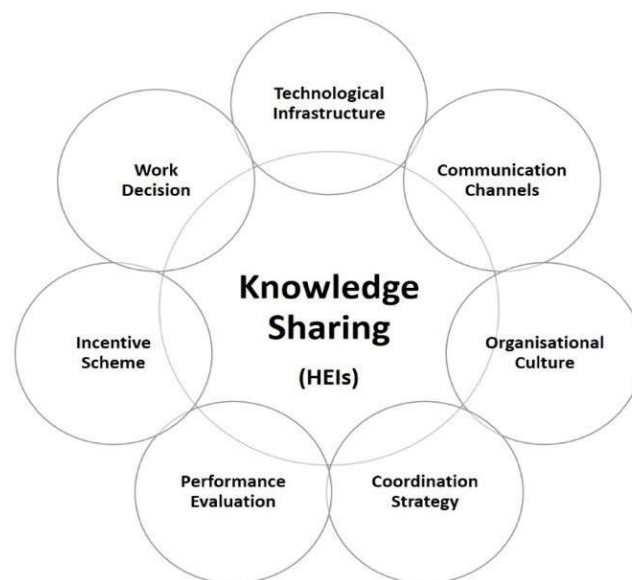
Proposition-1: Leadership Vision

The leadership in the higher education is a constituent part with clear and precise vision. Without any doubt, the HEIs leaders must have strong leadership skills to guide their institutions through crises. An effective and robust faculty and academic staff leadership is essential, however, for institutions to truly thrive in the current higher education landscape. Leadership vision is among one of the four fundamental hypotheses in this research study to debate on knowledge sharing for enhanced performance among academics. The on-going reformation for knowledge haring in the higher education involves implementing changes that may not easily gain acceptance within the institutions unless the leadership vision to support all knowledge users in order to provide a conducive learning environment for widespread sharing of knowledge.

Proposition-2: Staff Motivation

The faculty and academic staff in the higher education institutions are a significant resource. They are specifically responsible for a substantial constituent of the key functionalities and operations while having a key role in achieving the set objectives of the institution. The performance of faculty, both as teachers, researchers, scholars and managers is determined in any university, to a large extent, the quality of the

graduates' experience while having a crucial impression on student learning and thereby on the contribution that such institutions can make to a society (Sotiriou et al., 2018). Most higher education institutions have an implicit or explicit mission to offer a high-quality learning experience to all their learners. However, the academic experts are needed to manage an excellent teaching and learning experience as the main interface with scholars. Subsequently, the faculty and academic staff motivation is essential in determining the quality of this interface.

Proposition-3: Technological Innovation

Technological innovation is the prosperous application for a socio-technical impression and learning excellence for creating and sharing knowledge within the higher education institutions. A variety of models of the technological innovation process are described, for they are useful in developing learning policies for encouraging innovations as well as for managing their creation. The role of ICT in enhancing knowledge sharing in the HEIs is valuable in a much positive (supporting and enabling) and negative (preventing and hindering) ways. Nevertheless, ICT is vigorously enhancing the knowledge content in teaching and learning but at the same time emerging technologies play in both positive and negative ways as a facilitator and averter. To address such challenge, it is necessary to conduct a research study on appropriate knowledge sharing practices in the HEIs. This is becoming vital to identify the key factors to ensure effective knowledge sharing and how the use of ICT would better affect such processes in HEIs.

Proposition-4: Organisational Culture

The organisational culture includes an organization's expectations, experiences, philosophy, as well as the values that guide staff members' behaviour, attitude and action as articulated in faculty self-esteem, team-work, inter- personnel relationship, core-group interactions and collaboration with the outside partners (Mayhew, 2016). The organisational culture is based upon shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid (Ogut et al., 2014). According to Martin (2006) the organisational culture consists of three parts: artefacts, espoused values, and underlying assumptions. Simply stated, organisational culture is "the way things are done around here" (Deal and Kennedy, 2000). The organisational culture is the classic reference for academic staff and students seeking a deeper understanding of the inter-relationship of organizational culture dynamics and leadership. Members of an organisation develop a shared belief around "what right looks like" as they interact over time and learn what yields success and what does not specifically in learning environment to effectively share knowledge (Maciag, 2019).

Knowledge Sharing Process: HEIs

In this study, the knowledge sharing processes in the HEIs are referred to as a methodical approach to identifying, capturing, classifying, and managing and distributing the academic expertise and intellectual assets, which are essential to the institutions' strategic performance (Massingham, 2019; Jennex, 2020). Knowledge sharing processes provides a solid foundation that ensures the knowledge as the institution's intellectual property (scholarly know-how of its members) leads into greater performance, enhanced productivity, innovative methods, modern pedagogy and improved competitiveness. Knowledge sharing processes would be viewed as turning data into information and transforming information into knowledge and is a cyclic process involving various academic activities including knowledge creation, codification, transfer and knowledge application (Gyamfi and Williams, 2018).

TABLE 1
DESCRIPTION OF KNOWLEDGE SHARING PROCESSES IN HEIs

| Knowledge Sharing Processes – Key Features	Author(s)	Reference
Sharing; Managing; Organising; Implementing; Publishing	Peter Massingham	*Massingham, 2019*
Manage; Organise; Share; Transfer; Assess; Validate; Acquire	Kimiz Dalkir	*Dalkir, 2017*
Organising; Managing; Transferring; Assembling; Filtering; Distributing	Ashok Jashapara	*Jashapara, 2010*
Manage; Develop; Combine; Share	Stephen E. Little	*Little, 2005*
Planning; Creating; Integration; Organizing; Transfer; Maintenance	Herwig Rollett	*Rollett, 2003*
Create; Store; Distribute; Apply; Manage; Organise; Share	Kai Mertins, Peter Heisig, Jens Vorbeck	*Mertins et al., 2003*
Creation; Organization; Distribution; Application; Adoption	William Tyndale	*Tyndale, 2002*
Identification; Acquisition; Development; Circulation; Utilization; Preservation; Distribution	Gilbert Probst, Howard Dought, Steffen Raub	*Probst et al., 2002*
Creating; Storing/Retrieving; Transferring; Applying	Maryam Alavi, Dorothy Leidner	*Alavi and Dorothy, 2001*
Sharing; Accessibility; Assimilation; Application; Organisation	Scott Tannenbaum, George Alliger	*Tannenbaum and Alliger, 2000*
Generate; Codify; Transfer; Share	Thomas Davenport, Laurence Prusak	*Davenport and Prusak, 2000*
Gathering; Storage; Communication; Synthesis; Dissemination; Share	Grayson C. Jackson	*Jackson, 1999*
Acquisition; Selection; Internalization; Use, Application; Manage	Clyde Holsapple, Kshiti Joshi	*Holsapple and Joshi, 1998*
Gathering; Refining; Disseminating; Organising; Managing; Transferring	Angus J. Kennedy, Kevin J. Harty, Jayesh Patel	*Angus et al., 1998*
Develop; Distribute; Combine; Hold	Rob Van-der-Spek, Andre Spijkervet	*Van der Spek and Spijkervet, 1997*
Generation; Codification; Transfer	Rudy Ruggles	*Ruggles, 1997*
Share-create; Identify; Collect; Adapt-organize; Apply; Assess	Arthur Andersen, APQC	*Andersen and APQC, 1996*
Socialization; Internalization; Externalization; Combination	Ikujiro Nonaka, Hirotaka Takeuchi	*Nonaka and Takeuchi, 1995*
Creation; Manifestation; Use; Transfer	Karl M. Wiig	*Wiig, 1993*
Change; Transformation; Transfer	Peter Drucker	*Drucker, 1992*

The knowledge sharing conceptual framework is required to achieve an overarching strategy within the higher education institutions to provide the full knowledge management lifecycle. To develop this

framework, it is essential to identify key factors that have the capability to undermine or to support knowledge sharing within HEIs with the aim of making the optimum use of academic expertise as an intellectual asset. The knowledge sharing processes therefore rationalises a conceptual framework that can coincide within the HEIs to represent knowledge management practices towards the effective and efficient implementation of remote learning within HEIs. The knowledge sharing processes includes knowledge planning, knowledge capture, knowledge transfer, knowledge manage, knowledge retrieve, knowledge application, knowledge maintenance and knowledge evaluation towards an enhanced HEIs performance. In this study various knowledge sharing models developed by key authors during (1990 - 2020); which are examined to drive the knowledge sharing descriptions (TABLE 2).

This study proposes a conceptual framework that links higher education processes involved in creating, sharing and managing knowledge to get the best from the emerging technologies. The research has emphasised on the role of ICT for knowledge sharing, precisely in context of current COVID-19 pandemic to offer teaching and learning via online mode. It includes online teaching and learning strategies, information technology applications, epidemic prevention cases in the HEIs and Schools, so as to promote the rapid improvement of teachers' online teaching abilities (Huang et al., 2020). The virtual education system is particular enabling ICT and KM processes to arrive at a systematic and holistic framework for improved KM outcomes. Hence fulfilling higher education goals. The Stankosky's (2005) four pillars model is considered to enterprise learning which consists of leadership, organisation, technology and learning in support of HEIs' across the board initiatives whereas each of these pillars represent critical success factors for knowledge sharing. The five steps knowledge maturity model and the task-technology fit theories on the other hand are examined to understand the use of emerging technologies within the UK higher education for pedagogy excellence and enhanced performance (Mead and Beadle, 2019).

Given the emergency shift to remote teaching and learning practices, information technology has crucial role to ensure continuity of teaching and learning. The UK universities have recently provisionally stopped face-to-face lessons and switched to online learning, which has further amplified the position of information technology for knowledge sharing within the HEIs (Adams, 2020). In the proposed framework, the higher education institutions and their senior leadership are considered to form an essential part in the higher education processes. From the Nonaka and Takeuchi (1995) study the creation of knowledge through the integrated SECI process indicates that the presence of teaching policy, mainly in the form of contemporary learning is critical for knowledge sharing to take place and to allow for interaction to happen (Nonaka and Konno, 1998). The table above (Table 2) provides a summary of the theoretical models identified by different authors to explain how institutions in the higher education can create, transfer, manipulate, organise, manage and share intellectual scholarly expertise to guide key knowledge sharing processes as described in the conceptual research framework below (Figure 3).

FIGURE 3
THE KNOWLEDGE SHARING CONCEPTUAL FRAMEWORK IN HEIs
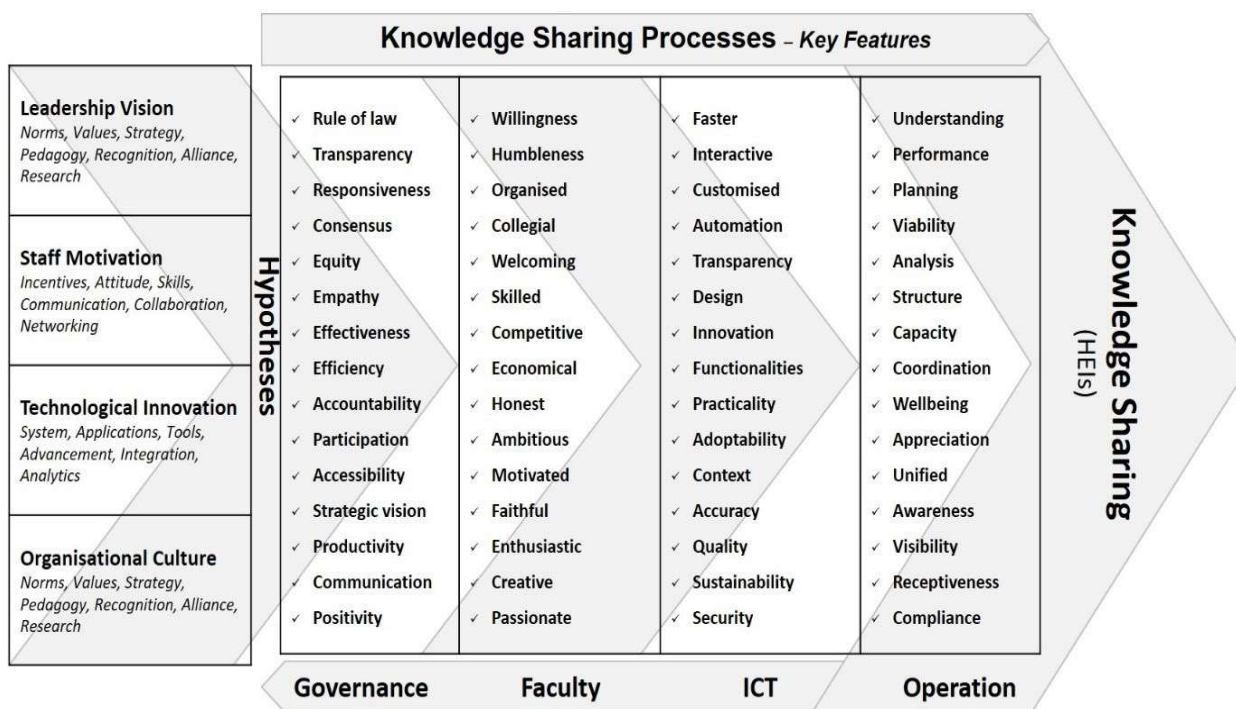
As shown in the knowledge sharing conceptual framework (Figure 3), knowledge sharing in HEIs is based on four key characteristics of the institution which are Governance, Faculty, Technology and Operations. However, this is also believed as endorsed by Davenport and Prusak (2000) that knowledge sharing is actually an evolving and thoughtful activity related to knowledge contributors and receivers. The research key hypotheses are validated by the majority of the reviewed studies examined the behaviour, attitudes and intentions of academics towards knowledge sharing (Massingham, 2019). It is therefore, supposed that key features are dominant among the explored determinants followed by institution's governance, faculty, ICT and operation as influencing factors on knowledge sharing activities among academics.

CONCLUSION AND RECOMMENDATION

This paper identified emerging challenges for knowledge sharing in the higher education to propose a conceptual framework for knowledge sharing for enhanced performance in the UK higher education institution (HEIs). The knowledge sharing conceptual framework development is inspired by SECI (1996) and Stankosky's (1999) knowledge management models to enterprise learning together with the leadership, pedagogy, technology and culture. The conceptual framework highlights the relationships and interplay between identified four eminent factors for enabling knowledge sharing processes in the HEIs such as leadership vision, staff motivation, technological innovation and organisational culture. The framework further intricates the sub-categories of essential features of knowledge sharing processes as establishing the fundamental provision and prerequisite.

In the proposed framework, governance, faculty, ICT and operation are considered as enabling parts of knowledge sharing processes within the higher education system. From the hypothetical point of view, the proposed conceptual framework provides an initial understanding of a methodological approach for developing a framework for knowledge sharing to enhance performance in higher education institutions. This study is concluded by identifying main and sub-sets of key features in the knowledge sharing processes

within the higher education institutions (HEIs), which are required in generating, organising, transmitting, managing and sharing knowledge; as well as the connections that link these characteristics composed. The research paper is based on the amalgamation of numerous portions of current research studies and therefore, this study further requires empirical evaluation and testing, which is anticipated that the ideas, conceptual approach, discussion, and research issues set forth in this paper represent a contribution to the literature on knowledge sharing for enhanced performance in the HEIs.

REFERENCES

Abdur-Rafiu, M. (2015). *Knowledge sharing behaviour of academics in the polytechnic*. AP LAMBERT Academic Publishing, Ibadan.

Adams, R. (2020). UK universities switching to online lectures and exams. *The Guardian*. Retrieved March 20, 2020, from https://www.theguardian.com/world/2020/mar/12/uk-universities-switching-to-online-lectures-and-exams

Adom, D., Hussain, E.K., & Joe, A. (2018). Theoretical and conceptual framework: Mandatory ingredients of a quality research. *International Journal of Scientific Research, 7*(1), 438-441

Alavi, M., & Leidner, D.E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly, 25*(1), 107-136.

Almeida, H., & Sequeira, B. (2018). The role of knowledge transfer in open innovation: Advances in knowledge acquisition, transfer, and management. *Information Science Ref.*

Andersen, A., & APQC. (1996). *The apparent reality: On knowledge production in the social sciences*, in Danish. Copenhagen: Sam funds literature.

Angus, J., Patel, J., & Harty, J. (1998). Knowledge management cosmology. *Information Week, 16*(59).

APQC. (2020). How mature is your knowledge management program? Using APQC's KM capability assessment tool. Research provided by APQC. *The International Resource for Benchmarks and Best Practices.*

Aureli, S., Giampaoli, D., Ciambotti, Massimo, & Bontis, N. (2019). Key factors that improve knowledge-intensive business processes which lead to competitive advantage. *Business Process Management Journal, 25*(1), 126-143

Babi, V., & Nedelko, Z. (2020). *Handbook of research on enhancing innovation in higher education institutions*. Business Science Reference.

Bolisani, E., & Bratianu, C. (2018). *Emergent knowledge strategies: Strategic thinking in knowledge management (knowledge management and organizational learning)* (1st Ed.). Springer.

Bolton, P. (2019). Higher education funding in England: Briefing paper. *House of Commons Library*, Number 7393

Bratianu, C., Vătămănescu, E., Anagnoste, S., & Dominici, G. (2020). Untangling knowledge fields and knowledge dynamics within the decision-making process. *Journal of Management Decision, 58*(2). ISSN: 0025-1747

Brouwer, J., & Jansen, E. (2019). Beyond grades: developing knowledge sharing in learning communities as a graduate attribute. *Journal of Higher Education Research and Development, 38*(2), 219-234.

Buckley, S.B., & Jakovljevic, M. (2012). *Knowledge management innovations for interdisciplinary education: Organizational applications*. IGI Global.

Burns, M., & Griffith, A. (2018). *The learning imperative: Raising performance in organisations by improving learning*. Crown House Publishing.

Cheng, E. (2020). Knowledge transfer strategies and practices for higher education institutions. *VINE Journal of Information and Knowledge Management Systems, 14*(2), 214-227.

Chu, K.W. (2016). Beginning a journey of knowledge management in a secondary school. *Journal of Knowledge Management, 20*(2), 364-385.

Cortellazzo, L., Bruni, E., &Zampieri, R. (2020). The role of leadership in a digitalized world: A review. *Front. Psychol., 10*(1938). doi: 10.3389/fpsyg.2019.01938

Cranfield, D.J., & Taylor, J. (2008). Knowledge management and higher education: A UK case study. *The Electronic Journal of Knowledge Management, 6*(2), 85–100.

Dalkir, K., & Beaulieu, M. (2018). *Knowledge management in theory and practice* (3rd Edition). MIT.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Journal of Applied Developmental Science*. Routledge.

Davenport, T.H., & Prusak, L. (2000). *Working knowledge: How organizations manage what they know*. Harvard Business School Press: Boston, Mass.

Deal, T.E., & Kennedy, A.A. (2000). *Corporate cultures: The rites and rituals of corporate life*. London: Da Capo Press.

Drucker, P. (1992). *The age of discontinuity: Guidelines to our changing society* (2nd Edition). Transaction Publishers.

Gyamfi, A., & Williams, I. (2018). *Big data and knowledge sharing in virtual organisations: Advances in knowledge acquisition, transfer, and management* (1st Edition). Engineering Science Reference.

Hall, R. (2018). *A policy change away from collapse: Universities' fears for 2018*. University Leadership. The Guardian.

Holsapple, C.W., & Joshi, D. (1998). *In search of a descriptive framework for knowledge management: Preliminary Delphi results*. Kentucky Initiative for Knowledge Management.

Howard, M.C., & Rose, J.C. (2019). Refining and extending task–technology fit theory: Creation of two task–technology fit scales and empirical clarification of the construct. *Journal of Information and Management, 56*(6), 103-134.

Huang, R.H., Liu, D.J., Tlili, A., Yang, J.F., & Wang, H.H. (2020). *Handbook on facilitating flexible learning during educational disruption: The Chinese experience in maintaining undisrupted learning in COVID-19 outbreak*. Beijing: Smart Learning Institute of Beijing Normal University

Imenda, S. (2014). Is there a conceptual difference between theoretical and conceptual frameworks? *Journal of Social Science, 38*(2), 185-195.

Inamorato, A., Gausas, S., Mackeviciute, R., Jotautyte, A., & Martinaitis, Z. (2019). Innovating professional development in higher education: Case studies. *JRC Technical Report*. EUR 29669 EN, Publications Office of the European Union, Luxembourg.

Jackson, G.C. (1999). Process to product - creating tools for knowledge management hype. *Journal for Quality and Participation, 21*(4), 58-60.

Jarvis, J., Clark, K., & Smith, K. (2020). *Conversations to change teaching: Critical practice in higher education*. Critical Publishing Ltd.

Jashapara, A. (2010). *Knowledge management: An integrated approach*. Financial Times Prentice Hall.

Jennex, M.E. (2020). *Knowledge management, innovation, and entrepreneurship in a changing world: Advances in business strategy and competitive advantage*. Business Science Reference.

Kaur, V. (2019). *Knowledge-based dynamic capabilities: the road ahead in gaining organisational competitiveness (Innovation, Technology, and Knowledge Management)* (1st Ed.). Springer.

Kim, S., & Lee, H. (2006). The impact of organizational context and information technology on employee knowledge sharing capabilities. *Public Administration Review, 66*(3), 370-382.

Kreitner, R., & Kinicki, A. (2012). *Organisational Behaviour* (10th Edition). Kindle. McGraw-Hill Higher Education.

Lea, J. (2015). *Enhancing learning and teaching in higher education: Engaging with the dimensions of practice* (1st Edition). UK Higher Education Humanities and Social Sciences Higher Education. Open University Press.

Little, S.E. (2005). *Managing knowledge: An essential reader*. Sage Publications Ltd.

Maciag, J. (2019). *Lean culture in higher education: Towards continuous improvement* (1st Edition). Palgrave Macmillan.

Marshall, S. (2019). *A Handbook for teaching and learning in higher education: Enhancing academic practice* (5th Edition). Routledge.

Martin, M.J. (2006). That's the way we do things around here: An overview of organisational culture. *Electronic Journal of Academic and Special Librarianship, 7*(1), 231-245.

Massingham, P. (2019). *Knowledge management: Theory in practice* (1st Edition). SAGE Publications.

Mead, D., & Beadle, P. (2019). *The expert teacher: Using pedagogical content knowledge to plan superb lessons* (Edition-01). Independent Thinking Press.

Mertins, K., Heisig, P., & Vorbeck, J. (2003). *Concepts and best practices* (2nd Edition). Springer-Verlog, Berlin Heidelberg. New York.

Moore, B. (2013). *An Introduction to the Psychology of Hearing* (6th Edition). Brill.

Nair, B.V., & Munusami, C. (2019). Knowledge management practices: an exploratory study at the Malaysian higher education institutions. *Journal of Research in Innovative Teaching & Learning.* ISSN: 2397-7604

Nonaka, I., & Konno, N. (1998). The concept of Ba: Building a foundation for knowledge creation. *California Management Review, 40*(1), 40-54.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge creating company.* Oxford University Press.

Nonaka, I., & Takeuchi, H. (1996). *The knowledge creating company: How Japanese companies create the dynamics of innovation.* Oxford University Press, New York.

Ogut, E., Cetinkaya, A.S., & Ogut, A. (2014). The impact of tolerance as a component of organizational culture on individual stress. *Proceedings of International Academic Conferences 0702360.* International Institute of Social and Economic Sciences

Omona, W., & Weide, T. (2010). Using ICT to enhance knowledge management in higher education: A conceptual framework and research agenda. *International Journal of Education and Development using Information and Communication Technology, 6*(4), 83-101.

Pedro, E., Leitao, J., & Alves, H. (2019) The intellectual capital of higher education institutions: Operationalizing measurement through a strategic prospective lens. *Journal of Intellectual Capital, 20*(3), 355-381.

Ravitch, S.M., & Carl, N.C.M. (2015). *Qualitative research: Bridging the conceptual, theoretical, and methodological* (1st Edition). SAGE Publications.

Research England. (2018). Guide to research and knowledge exchange funding 2018-19: How research England allocates its funds. *Research England.* RE-P-2018-0.

Rollett, H. (2003). *Knowledge management: Processes and technologies.* Springer Science and Business Media Publication.

Rowley, J. (2000). Is higher education ready for knowledge management? *International Journal of Educational Management, 14*(7), 325-333.

Ruggles, R. (1997). The state of the notion: Knowledge management in practice. *California Management Review, 40*(1), 80-89.

Schwarzman, S.A. (2019). *What it takes: Lessons in the pursuit of excellence.* Simon and Schuster.

Singh, A.K., & Mohan, A. (2019). *Handbook of multimedia information security: Techniques and applications* (1st Edition). Springer.

Skyrme, G. (2008). *I am who I am: New senses of self in a New Zealand university.* Paper Presented at the CELSOL Conference 2008. Auckland, New Zealand.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research, 104*(1), 333-339.

Sotiriou, M., Tong, V.C.H., & Standen, A. (2018). *Shaping Higher Education with Students: Ways to Connect Research and Teaching* (1st Edition). UCL Press.

Stankosky, M. (2005). *Creating the discipline of knowledge management: The latest in university research* (1st Edition). Routledge.

Tannenberg, S.I., & Alliger, G.M. (2000). *Knowledge management: Clarifying the key issues.* IHRIM.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management: Knowledge by means of systematic review. *British Journal of Management, 14*(1), 207-222.

Tremblay, K., Lalancette, D., & Rosevear, D. (2012). Assessment of higher education learning outcomes: Ahelo feasibility study report. *Design and Implementation.* OECD.

Tsai, Y. (2011). Relationship between organizational culture, leadership behaviour and job satisfaction. *BMC Health Service Res., 11*(98). doi:10.1186/1472-6963-11-98

Tyndale, W. (2002). *New testament: Wordsworth classics of world literature.* Wordsworth Editions Ltd.

Van der Spek, R., & Spijkervet, A. (1997). Knowledge management: Dealing intelligently with knowledge. In *Knowledge management and its integrative elements* (1st Edition). Knowledge Management Network. New York: CRC.

Watanabe, R.M., & Senoo, D. (2009) Shaping knowledge management: Organization and national culture. *Journal of Knowledge Management, 14*(2), 214-227.

Wiig, K. (1993). *Knowledge management foundations.* Arlington, TX: Schema Press.