Migration Letters

Volume: 20, No: S12(2023), pp. 788-809

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)

www.migrationletters.com

Knowledge Sharing Behaviour and Innovative Work Behavior among EFL Faculty Members

Salmeen Abdulrahman Abdullah Al-Awaid[1], Ruqayyah Nasser Moafa[2], Nadia Mohammad Awdh Hussain[3]

Abstract

The exchange of information and innovation are essential drivers for universities' sustainable competitive advantages. This research contributes to the current literature on the congruency between the conduct of information sharing (KSB) and the innovative working behaviour (IWB) of EFL faculty members of the English Language Institute (ELI) at a Saudi university. A descriptive correlation survey template was used in the analysis with a total of 48 faculty members. It is noted that, among EFL faculty members in the ELI, 17.5% of faculty share preferred information with the adopted interpretations through scale ranges: Strongly Agree/ Very High a (4.20-5.00); Agree/ High b (3.40-4.19); Undecided/ Moderate c (2.60-3.39); Disagree/ Low d (1.80-2.59); Strongly Disagree/ Very Low e (1.00-1.79). In the same way, the interpretations of innovative working activity among faculty members are represented. Differences tests have shown the comportments in information exchange are commonly seen in results with gender, higher rank and years of service. This outcome provides a strong image of how interventions can be started to improve the position of ELI as an innovative global participant. It was also unveiled that the faculty expressed variations in their research working conduct through, teaching and years of service. Furthermore, it was noticed that there is a positive consensus among respondents between the conduct of knowledge sharing and innovative working behaviour. For prospective studies, the study 's theoretical, realistic and shortcomings are discussed.

Keywords: *Academia, EFL Teachers, Innovative Work Behaviour, Knowledge Generation, Knowledge Sharing, Knowledge Management.*

INTRODUCTION

Institutions acquire and provide expertise that is ultimately distributed across their human and information capital. Effective knowledge and management are critical to good education during the modern era as the fundamental function of universities is to create, preserve and apply knowledge which is necessary for the progress of innovation and sustainability (Alhammad et al., 2009; Ardito et al., 2019; Chong et al., 2014; Ghani et al., 2014); The exchange of information is an integral step of knowledge management in these systems (Ardito et al., 2019; Mahdi et al., 2019).

Knowledge management (KM) is important for the pursuit of knowledge among universities. It is important to encourage the efficiency of study in the operations and processes of universities from their various roles and growth, in particular retention,

[1] Assistant Professor of Linguistics, English Language Department, Jazan University
[2] Assistant Professor of Applied Linguistics, English Language Institute, Jazan University
[3] Assistant Professor of Linguistics, English Language Department, Jazan University

recruiting and the moral of faculty or students. However, as education is competitive and embraced, universities worldwide are frequently confronted with dilemmas owing to ambiguous and conflicting directions marked by the failure to find consensus and decisions on the mechanism of transition, institutional rivalry to viability and significance (Kulaki & Mahony, 2014; Joalee et al., 2014).

University faculty members experience difficulties since many institutions do not yet deem exchanging information a required endeavour for their growth and sustainability. As a result, their maturity rate in KM remains underdeveloped (Eid & Al-Jabri, 2016; Naser et al., 2016a, 2016b; Sohail & Daud, 2009). Universities need faculty members to participate effectively in research where expertise sharing, coordination and mentorship are required (Behar-Horenstein et al., 2018; Stupnisky et al., 2019; Tan, 2016). Yi (2009) notes that information exchange is a collection of human behavioural mechanisms that entails exchanging experience and knowledge throughout the enterprise to lead to organizational productivity and sustainability.

Knowledge Sharing

The behaviour of knowledge sharing in the sense of higher educational institutions relates to staff members' desire to exchange experience with the organization based on their skills, knowledge creation, knowledge dissemination, knowledge-giving, knowledge-receiving, and studies carried out to enhance teaching and learning processes. In the context of a higher education institution, Mahdi et al. (2019) reported that sharing and control of information are also not highly discussed. Bello and Oyekunle (2014) stressed that universities need to promote and reinforce a culture of science, cooperation and creativity among universities. Igbal et al. (2011) also emphasized that the creative potential of faculty members in education has been firmly verified by behaviours in information exchange.

Innovative Work Behaviour

Another key variable in the analysis is the innovative conduct of faculty members, which is similarly significant in terms of organization. One of the main reasons for sustainable competitiveness has been the artistic expression of a university's faculty members (Montani et al., 2017; Bani-Melhem et al., 2018). According to Janssen (2000), IWB consists of three behaviours: idea creation, idea promotion, and idea implementation. It relates to the willingness of universities to start researching solutions, developing ideas, championing ideas, and introducing ideas (de Jong & Hartog, 2010). Several reports have demonstrated that staff members are the precursors to university creativity. It reveals that workers are an organization's most important assets. Innovation scholars have emphasized that several influencing forces that contribute to business-specific characteristics (Malerba, 2007), including organizational environment and funding, impact innovation and transition. The innovative conduct of staff members is important for a university to prosper. Looking at their expectations and overcoming their challenges and problems in innovation, they would have better chances to lead to organizational progress. In this review, literature investigating creative actions and Innovative work behaviours of faculty members in the EFL context is absent. We believe that promoting innovative work behaviours among EFL faculty members will support the development of new teaching methods and strategies, increase organizational performance, produce innovators among them, and encourage collaboration with other colleagues and professionals and improve the quality and effectiveness of teaching and learning.

Faculty members able to participate in innovative practice must be able to consistently handle expertise. Growth, recombination and transmission of information are for faculty members between universities,. They not only gain things about each other as they exchange expertise, but cooperate. There are claims that inside academia itself, knowledge exchange is usually restricted between academics (Abualoush et al., 2018; Al-Kurdi et al., 2020; Di Nauta et al., 2018; Franco & Pinho, 2019; Gaviria-Marin et al., 2019; Guerrero et al., 2016; Obeidat et al., 2017; Schaeffer et al., 2020).

Context and Research Gaps

With its research and patents, Saudi Arabia is one of the world's biggest creative economies (Fisch et al., 2016). Its Ministry of Higher Education and Universities aim to move toward many knowledge management (KM), knowledge sharing, innovative behaviours eliciting and global excellence by generating and using science and expertise, leading to national growth and development (Ying et al., 2017). The exchange of knowledge in academia is a basic challenge that should be improved by higher education organizations in order to accelerate the achievement of this goal. There are few studies that investigate the relationship between knowledge sharing and innovative work behavior in higher education institutions in the kingdom. To the best of our knowledge, no research has been conducted among EFL faculty members on their knowledge sharing and innovative work behaviors.

To bridge this gap, the present study the current sharing of knowledge and innovative actions of faculty members at the English Language Institute (ELI) in a Saudi university.. It hopes to have the requisite repercussions for how to improve the responsibilities and contribution of faculty members to the development, exchange and usage of knowledge. Academia faculty members are responsible for advancing scientific frontiers through research, knowledge sharing, and development participation, which can be incorporated into teaching (Chong et al., 2014; Ramachandran et al., 2009; Salleh et al., 2013; Wei et al., 2012). Innovative job activity among the faculty of academia is equally essential. An organization's innovative activity was seen as a crucial element in sustainable productivity (Bani-Melhem et al., 2018; Montani et al. 2017). Consequently, the innovative conduct of staff members is very relevant for a university background and growth to consider.

OBJECTIVES OF THE STUDY

This study explores the congruency between knowledge sharing behaviour and EFL faculty members' innovative work behaviour towards institutional productivity in the context of the ELI. It specifically sought to: (1) describe the prevailing knowledge sharing behaviours of faculty members; (2) determine the prevalent innovative behaviours of the faculty; (3) ascertain the differences in the knowledge sharing behaviours of the faculty when category grouped into their profile variables; (4) ascertain the congruent factors of knowledge sharing behaviours and faculty's innovative work behaviour towards organizational productivity.

The first unique issue was a photograph of the current KSB in the ELI. The research recorded collective impressions and retrospections shared by the faculty on the characteristics of ELI transcending the KSB, processes and structures. This section of the study argues that the KSB would provide more detailed guidelines for the advancement and growth of the university in the new era among faculty members. The second investigation is based on innovative work behaviour, which is an important resource for efficiency and competition in the enterprise. An individual's willingness to introduce to others what he has invented, acquired or created, facilities and processes is important for universities. Innovative activity includes Idea Generation, Idea Exploration, Idea Championing, Idea Implementation, priority recognition, and development of proposals. The research also offers a detailed image of the faculty's Innovative actions.

The association of EFL faculty's personal profile variables with their mutual common impressions of their information and knowledge sharing and their innovative actions. This segment showed the mediating impact of personal profile variables for the exchange of information and innovative work behaviours. In the Saudi context, high or low knowledge sharing may either improve or undermine the innovative actions of faculty. The interactions of the two main contingent variables help to reduce the information gap between awareness-sharing and innovative work behaviour.

METHODOLOGY

Research Design, Sampling and Procedure

The study employed descriptive correlation survey design to investigate the relationship between knowledge sharing behaviour and innovative working behaviour among EFL faculty members at the ELI. The data pertaining to the EFL faculty numbers was obtained via an online survey. The ELI administration disseminated a link to the online survey to the ELI staff via a WhatsApp group consisting of 273 faculty members. The distribution of 273 questionnaires resulted in a response rate of 17.5% as only 48 faculty members filled out the online survey questionnaires. This participation rate is sufficient for research of such a nature. This survey was carried out within the time frame of January 15, 2023, to April 15, 2023. The confidentiality of personal details and information obtained by the researchers is maintained in accordance with ethical testing protocols. The authors have submitted an application for research ethics review, which was subsequently accepted by the relevant authorities prior to the recruitment, identification, and selection of study participants.

To pave a clearer understanding of the personal attributes of the respondents, their profile variables were described by answering the personal information questions about their Gender, Level of Education, Job Title and years of service. The aforementioned variables can be considered as factors of knowledge sharing behaviour and innovative work behaviour. To ensure the confidentiality of the participants, a coding system was employed. Selected personal profile variables were identified, which will provide important implications to the research inquiries of the present study. Table 1 presents the frequency and percentage distribution of the respondents of the study. The aforementioned data indicates that the primary participants of the investigation are predominantly of the female/male (62.5%), assistant professors who hold both teaching and research functions (37.5%), and the majority possess a teaching experience ranging from 11 to 20 (60.4%).

Table 1. Personal Profile of the Respondents

Profile Variables	***Categories***	***Frequency Distribution (n=48)***	***Percentage Distribution***
Gender	Male	18	37.5
	Female	30	62.5
Teaching Position	Lecturers/ Instructors	20	41.7
	Assistant Professors	15	31.1
	Associate Professors	12	25.0
	Full Professors	01	02.0
Years of Service	Below 10 years	00	00.0
	11 to 20 years	14	29.2
	21 to 30 years	29	60.4
	31 and above	05	10.4
		00	00.0

Research Measures

The measure of Knowledge Sharing Behaviour Scale (KSBS)

To measure the Knowledge Sharing Behaviour Scale (KSBS) was adopted from Yi (2009) and consisted of four dimensions to wit: written contributions, organizational communications, personal interactions, and communities of practice. The KSBS consisted of 28 items. The instrument was answered with a 5-point Likert scale with the following scale ranges: Strongly agree to Strongly Disagree with one as the lowest and five as the highest. Responses were tabulated correctly and subjected to an appropriate statistical test. The instrument has been used by previous studies showing its reliability, construct and content validity (Al-Kurdi et al., 2018; Gonondo, 2017; Jyoti et al., 2019; Ramayah et al., 2014).

The measure of Innovative Work Behaviour (IWB)

Faculty IWB is an essential concern for emerging and developed organizations around the world. The measure of innovative work behaviour of this study utilized the questionnaire developed by de Jong and den Hartog (2010) consisting of 10 items distributed on four essential dimensions, namely idea exploration, generation, championing and implementation of ideas. The items in the instruments were sourced from previous reliable studies (Scott & Bruce, 1994; Jannsen, 2000; Kleysem & Street, 2001). The tool was answered with a 5-point Likert scale with the following scale ranges: Strongly agree to Strongly Disagree with one as the lowest and five as the highest. Responses were tabulated correctly and subjected to an appropriate statistical test.

Measures of Analysis

The data was obtained through the online survey, wherein the faculty members served as the primary source of data. Frequency and percentages were also used to describe the personal profile variables of the respondents. The descriptive statistics, specifically mean and standard deviation, were used to examine the knowledge sharing and innovative behaviours of EFL faculty members. The interpretations and scale ranges were taken into consideration during the analysis. The scale used to measure agreement or disagreement with a statement is categorized into five levels: Strongly Agree/ Very High a (4.20-5.00), Agree/ High b (3.40-4.19), Undecided/ Moderate c (2.60-3.39), Disagree/ Low d (1.80-2.59), and Strongly Disagree/ Very Low e (1.00-1.79). Statistical tests such as independent sample t-test, ANOVA, and Post Hoc-Tukey test were employed to determine the distinctions between the knowledge sharing behaviour and innovative faculty member behaviour. The present investigation examined the correlation between faculty members' knowledge sharing behaviour and their innovative behaviour, utilizing the Pearson correlation coefficient (r) as a statistical tool.

RESULTS AND DISCUSSION

Level of Respondents' Knowledge Sharing Behaviour

Table 2 presents a description of the knowledge sharing behaviour of the EFL faculty members in the ELI who participated in this study. Results showed that a high level of KSB is seen among the respondents, as evidenced by the grand mean of 3.78 (sd= 0.106). The result implies that a favourable knowledge-sharing environment is observed in the ELI, showing that they practice different activities to transfer and disseminate knowledge to one another. A closer look at the table, it conveys that the respondents have a high level of knowledge sharing behaviour in organizational communications (M=4.3, SD=1.08), and communities of practice (M= 3.80 SD=1.06). In like manner, they manifested a moderate level of knowledge sharing behaviour on written contributions (M=3.50, SD=1.06) and personal interactions (M= 3.85, SD= 1.06).

Table 2. Level of Knowledge Sharing Behavior

Domains of Knowledge Sharing	**Mean (n=48)**	**SD**	**Interpretation**	**Level Description**
Written Contributions	3.50	1.06	Agree	High
Organizational Communications	4.30	1.08	Strongly Agree	Very High
Personal Interactions	3.85	1.04	Agree	High
Communities of Practice	3.80	1.06	Agree	High
Grand Mean	**3.78**	**1.06**	Agree	**High**

Note: Strongly Agree/ Very High a (4.20-5.00); Agree/ High b (3.40-4.19); Undecided/ Moderate c (2.60-3.39); Disagree/ Low d (1.80-2.59); Strongly Disagree/ Very Low e (1.00-1.79)

The high level of knowledge sharing behaviour along organizational communications implies that the respondents can share information and knowledge through social interactions. It suggests that the faculty members have a high level of participation during organizational meetings and sessions, which are favourable avenues for knowledge generation, conceptualizations, planning, and proposal packaging. Such activities allowed to have high involvement in brainstorming for collective action. Hence, this dimension in knowledge sharing reflects their high willingness to become contributors to the university's success as well as their high commitment to their work. Studies showed that when college faculty members tend to display expertise, ideas, and suggestions when they feel their contributions are being recognized by the institutions which motivate them to help more in attaining the universities goals and objectives (Al-Husseini et al., 2019; Armoun et al., 2018; Cabrera & Cabrera, 2005; Liebowitz, 2019; Rhee & Choi, 2017; Santosh & Panda, 2016). Furthermore, considering that this dimension of knowledge sharing behaviour of higher education faculty usually transpired in professional collaborations like workshops, seminars, and learning sessions, colleagues are easily identified and remembered making their behaviours more rewarding on their part. In this context, their affiliative collegiality contributes much to knowledge sharing.

Consequently, the high level of communities of practice as knowledge sharing behaviour among higher education faculty members implies that they have favourable practice on sharing ideas, information and knowledge to the members of their academic community as a group. In this dimension, they have highly desirable behaviour towards extending their knowledge by way of meeting members to create, share and work with. The sharing of their knowledge occurs within their academic community system, which transpires informally. Such informal interaction among the university faculty members happens from one person to a group. This behaviour is generally characterized as a social exchange of ideas and knowledge. They believe that sharing their knowledge with other members of their community will establish a sense of trust and reciprocity. According to the study of Casimir et al. (2012), trust among academic community members bridges the organizational climate among universities to have a stronger knowledge exchange More so, knowledge sharing among the community members in this domain revolves around intrinsic motivation to support positive connections with each other through knowledge exchange and experience sharing. For Ritala et al. (2015), knowledge sharing behaviour is a factor of organizational innovation and productivity. As such, it develops individual creativity among community members (Rhee & Choi, 2017).

Results of this study also showed that the EFL faculty members of English Language institution are found to have a moderate practice of personal interaction as knowledge sharing behaviour. This dimension assessed the behaviour of the respondents on the informal way of knowledge interaction among individuals such as doing informal chatting along the university hallways and chatting during break time. It is conveyed in this finding that they sometimes observed sharing of knowledge in an unplanned and informal way. Ramayah et al., (2014) confirm in this KSB, the willingness of an individual to share knowledge is dependent on the quality and level of the personal relationship established towards others. This form of knowledge sharing is considered essential for an organization to observe since it promotes long-term commitment to work and productivity (Asrar-ul-Haq & Anwar, 2016; Mat et al., 2016 Obeidat & Tarhini, 2016; Rumanti et al., 2016).

Finally, a high level of knowledge sharing behaviour along written contributions has been observed. This dimension assessed how the respondents put the value of written documentation as a way of sharing knowledge and information. The result implies that a favourable level of KSB is manifested in this factor, indicating that the respondent's behaviour put a high level of knowledge sharing practice on research article publication,

brief notes, policy notes, newsletters, and magazines. It is evident that in this dimension, the respondents have a strong preference to organizational communication as knowledge sharing behaviour compared to the other knowledge sharing. The activities in this dimension involve explicit knowledge being transferred and transmitted through person to print medium. As such, the publication is an essential channel of bringing and sharing out ideas to the academic community. Hence, the scientific publication is an important vehicle of sharing and disseminating knowledge to other community members. This form of knowledge sharing is a way to contribute to the existing body of knowledge with the purpose of improving and advancing the advancing in particular and the society in general. The research publication is a global scholarly endeavour to transfer the value of science to others (Bellucci & Pennacchio, 2016; Blind et al., 2018; D'Este et al., 2018; Landry et al., 2010). The research publication is one of the performance indicators among universities in the world. It is one of their essential functions to transfer knowledge. It is the standard model of transferring knowledge (Miller et al., 2018; Perkmann & Walsh, 2007; Perkmann et al., 2013; Villani et al., 2017).

In general, it is noted that the EFL faculty members in the ELI are exhibiting favourable knowledge sharing behaviour along with respondents have a high level of knowledge sharing behaviour in organizational communications (M=4.3, SD=1.08), and communities of practice (M= 3.80 SD=1.06 but have a moderate level of knowledge sharing behaviour on written contributions (M=3.50, SD=1.06) and personal interactions (M= 3.85, SD= 1.06). The finding would generally imply the need for ELI to revitalize its strategies towards its knowledge sharing practices. This finding of the present study corroborates with the earlier claims of Park and Moultire (2010) highlighting that in the context of academia, knowledge sharing practices are considered limited across disciplines because of different factors being associated to it. Moreover, Kim and Ju (2008) accounted that it is common among higher education institutions to put emphasis on teaching and scholarly achievement than of fulfilling knowledge sharing to attain the mission and vision of the institutions.

Level of Respondents' Innovative Work Behaviour

The ability to presently innovate products, systems and services is critical to any higher education institution without innovative-value oriented faculty members. Henceforth, in the university context an individual's innovative actions are necessary to increase performance, creativity, innovation, development and improvement. The result of the level of respondents' innovative work behaviour is presented in Table 3. Results showed that a high level of innovative work behaviour is expressed in this study showing a grand mean of 4.18 (SD=4.25) indicating a very high level being shared among the EFL faculty members. It implies high favourable behaviour. Dong et al. (2017) confirmed that in a group level, innovation is the development and process or the outcome of integration among innovative and useful ideas by a group of people in an organization. Hence, in the context of academia, innovation through research, idea generation, exploration, contribution, enthusiastic for innovative ideas, implementation and development of new ideas is the lifeblood of the university to deal with the dynamic changes of time.

Table 3. Innovative Work Behaviour

Domains of Employee Innovative Behaviour	***Mean (n=48)***	***SD***	***Interpretation***	***Level Description***
Idea Generation	4.18	4	Agree	High
Idea Exploration	4.25	5	Strongly Agree	Very High
Idea Championing	4.00	4	Agee	High
Idea Implementation	4.30	4	Strongly Agree	Very High
Grand Mean	**4.1825**	**4.25**	Strongly Agree	**Very High**

Legend: Strongly Agree/ Very High a (4.20-5.00); Agree/ High b (3.40-4.19); Undecided/ Moderate c (2.60-3.39); Disagree/ Low d (1.80-2.59); strongly Disagree/ Very Low e (1.00-1.79)

Perusing the table, the faculty have a high level of idea generation with a mean of 4.18 (sd= 4.0). This domain ascertained the behaviour of the faculty to relate themselves to towards research and development. The high assessment of the faculty to this domain shows adherence that part of their work value orientation is to generate ideas and knowledge to address problems in the academia. Ideas are essential keys to innovation among higher education institutions. It refers to the process of constructing, creating, developing, and communicating concrete, representational, or abstract ideas. As a life cycle of research, idea generation is the process of designing, collecting, sorting ideas which can be exploited appropriately, which is requites for innovation. It is a creative process of finding new approaches (Girotra, Terwiesch, & Ulrich, 2010; Paulus & Yang, 2000; Zhao et al., 2019). Meanwhile, Adams (2006) put it into the context that a working environment which is less-bureaucratic facilitates the better flow of information to be more focus on idea generation.

Relative to idea exploration, this assessed the ability of the faculty members to find for ways in improving services, products, paying attention to issues that are not part of the daily work or trying to think for alternative ways to improve the delivery of services. In this domain, the faculty assessed themselves to have a very high level of idea exploration, evidenced by the mean of 4.25 (sd= 5). The work behaviour assessment shows that they manifest positive behaviour towards identifying problems and opportunities to gap the idea of “what is” and “what should be”. They favourably agreed that idea exploration is the starting point of innovation and invention. This is the discovery of an opportunity arising from a problem which will be the starting point of change (Guo & Laidlaw, 2018; Li & Zhang, 2019; Wei, 2018).

As to idea championing, this domain refers to the products, systems, and processes being promoted by faculty. In this domain, the faculty assessed themselves to high level of idea championing evidenced from the mean of 4.00 (sd=4). The fair assessment shows that the respondents exhibit a reasonable positive behaviour towards advocating or promoting ideas, systems, products, and processes they developed. These are faculty who are moderately capable of introducing change in the organization in terms of making organizational members enthusiastic and promotion for innovative ideas they generated. They positively adhere that new ideas promotion is an essential part innovative work behaviour that needs to be formally encouraged and supported by a group of people, unit or organization who will be the end-user of the innovative ideas, products or services. Among the championing strategies, the respondents' practice is technology dissemination and institutional policy recommendations. For Howell, Shea & Higgins (2005) idea championing includes advocacy campaign to express confidence regarding the success of innovation initiated. As seconded by Duradoni & Di Fabio (2019) that idea championing and entrepreneurial self-capital promote innovation and sustainability.

Finally, the EFL faculty member behaviour towards idea implementation involves the process of deploying, adapting, making innovative ideas part of his daily work processes and incorporate innovated technologies into process of teaching and learning. In this domain, the EFL faculty assessed themselves to have very high favourable behaviour level towards idea implementation as reflected with the mean of 4.30 (sd= 4.0). It implies that they have a positive drive to make their ideas happen and become utilized properly and applied by the institute. Kleysen & Street (2001) noted that idea implementation involves putting innovations as part of the regular work processes. Consequently, Bos-Nehles and Veenendaal (2010) affirmed that organizational practices on idea implementation has a moderating effect on innovative climate.

Difference on the Respondents' Knowledge Sharing Behaviour when Grouped in to the Respondents Profile Variables

To provide an answer to the research inquiry, the interplay of personal profile variables of college faculty with their shared collective perceptions towards their knowledge sharing behaviour may have significant implications when grouped according to their profile variables. Yi (2009) defines knowledge sharing as a set of individual practices which includes the sharing of one's knowledge and expertise with other members of the academic community. In more straightforward term, knowledge sharing behaviour is the process of disseminating and presenting an individual acquired and learned knowledge within the organization (Feiz et al., 2019; Ryu et al., 2003; Wang & Noe, 2010). In the study of Ali et al. (2019), knowledge sharing behaviour is influenced by organizational and personal factors. Al-Kurdi et al. (2020) confirmed that organizational climate and personal profile are factors in knowledge sharing in academia.

Table 4. Test of Difference on KSB when Grouped to the Respondents Profile Variables

Control Variables	**Written Contributions**	**Organizational Communications**	**Personal Interactions**	**Communities of Practice**
Gender	0.432. ns	0.543 ns	0.320 ns	**0. 0.02***
Position	**0.000*****	**0.001****	0. 193 ns	**0.03***
Years of Service	**0.000*****	0. ns	**0. ***	0.0 ns

Note: *** p < 0.00 ** p < 0.01; * p < 0.05; ns= not significant

An inspection of the table shows that gender spelt differences in the communities of practice (p=0.02*). The result affirms that genders tend to have a higher level of knowledge sharing behaviour. It suggests that EFL faculty members manifest higher behaviour towards communities of practice than the male, which is attributed to the human nature. Hence, the higher inclination on these factors. This finding concurs with Abramo, D'Angelo & Murgia (2013) highlighting that gender have a higher desire and capacity to establish collaboration and partnership. Moreover, previous studies confirmed that EFL faculty members showed a more elevated level of cooperation hence develop more formal collaborations and networks (Bozeman & Corley, 2004; Fell & König, 2016; Larivière et al., 2011; Leahey, 2016).

Consequently, teaching positions also spelt significant difference in the knowledge sharing behaviour of the respondents along with written contributions (p= 0.000 ***), organizational communications (p= 0.001 *), and communities of practice (p=0.03*). Post-Hoc Analysis with Tukey's test showed that those faculty members engaged in research such as the associate professors and full professors' manifest higher engagement and collaboration through knowledge sharing behaviour compared to those who are lecturers and assistant professors. The finding is indicative that those faculty members who are in the high ranks are required to conduct research have higher behaviour towards knowledge sharing through publications, written communications, and practice of networking. Wester et al. (2019) identified that teaching position is a factor of research sharing and productivity among higher education professors. In like manner, Nafukho et al. (2019) reported that research productivity and knowledge sharing through research publication, organizational communication and professional organizations is favourable to professors who are in research and teaching positions among leading universities in Kenya. Previous studies also confirmed that teaching ranks are a predictor of research and knowledge productivity (Andrews et al., 2019; Lafuente & Berbegal-Mirabent, 2019; Gonzalez et al., 2019).

Moreover, years of service also spelt differences in the knowledge sharing among faculty members along with written contributions (p=0.000***) and personal interactions (p=0.0*). Post-Hoc Tukey test showed that those who have been in the service for long

years showed higher knowledge sharing behaviour through organization communication and personal interaction. It indicates that those who have been in the higher years of service showed high level expression towards knowledge sharing. This result aligns with White et al. (2012) that experience and years of service are correlates of research productivity and knowledge sharing. Further, earlier studies have reported the scholarly productivity is predicted by personal profile of faculty members in higher education such as their teaching tenure and years of service (Allen & Sweeney, 2017; Griffin et al., 2018; Manjunath & KK, 2016; Milburn & Brown, 2016; White et al., 2012).

In the general context, the knowledge sharing behaviour of faculty members in the ELI is significantly seen in the gender, position, and years of service. This result will provide a clear picture as to how interventions can be initiated to strengthen the role among universities as innovative global institutions capable of bridging the gap between knowledge and action. From the findings, it can be interpreted that there is a need for those faculty members who are female, relatively young and in the low rank to further improve their research engagement and knowledge sharing behaviours considering that their skills and abilities are essential for the knowledge production and utilization are highly sought. Hence, Ramjeawon and Rowley (2018) affirmed that faculty members have a distinct and crucial role in knowledge management and sharing in academia. This result of the present study provides a new perspective on how to reorient and reframe the processes of knowledge sharing, knowledge creation, and knowledge transfer behaviour among faculty members of Saudi universities.

Difference on the Respondents' Innovative Behaviour when Grouped in to the Respondents Profile Variables

Table 4 presents the difference in the assessment of faculty members innovative work behaviour when grouped according to profile variables. The result showed a significant difference in the faculty innovative behaviour when grouped according to position and years of service. It suggests that personal profile variables spelt differences on the teacher's innovative work behaviour. An inspection of the table shows that Gender spelt differences on the faculty member innovative work behaviour factors on idea exploration (p=0.02*) and idea championing (p=0.004**). The result favours female faculty members to have higher innovative work behaviour compared to their male counterpart. It suggests that female faculty manifest higher behaviour towards innovation than men among ELI faculty members. Hence, the higher inclination on these factors. This finding supported by Xie and Zhang (2015) traced the patterns of patents in Saudi and concluded that there is a Gender-ratio imbalance is increasing where female-dominated industries and universities have exhibited higher innovations than in male-dominated industries. It also confirmed by previous studies (Hu et al., 2017; Wang et al., 2018; Wei et al., 2017).

Table 4. Test of Difference Faculty Innovative Work Behaviour when Grouped in to the Respondents Profile Variables

Control Variables	*Idea Exploration*	*Idea generation*	*Idea championing*	*Idea Implementation*
Gender	**0. 02***	0. 603 ns	**0.004 ***	0.403 ns
Position	0.354 ns	0.432 ns	**0.03 ***	0.322 ns
Years of Service	0. 001**	0.832 ns	0.000 ***	0.124 ns

Note: * p < 0.05; ** p < 0.01; *** p < 0.00 ns= not significant

As to position, those put more emphasis on idea championing (p=0.03*) implying that idea defending is a factor for them as higher education faculty members and for them to communicate well innovative ideas and organizational direction to their colleagues. Hence, idea championing highlights the process of exhibiting and possessing pedagogical, technological, teaching, persuasion skills to convince group on the quality of an idea, process, technology or system. Cerne, Kase, & Skerlavaj (2016) described idea

championing in a group level where someone is advocating for innovation and aims to generate positive behavioural support among its members. Previous literature also supports this finding that effective entrepreneurial leadership influences innovative work behaviour (Antal & Debucquet, 2017; Bagheri & Akbari, 2018; Perry-Smith & Mannucci, 2017). Finally, those faculty members with more years of service or those senior faculty members have higher behaviour towards idea exploration (p=0.001**), and idea championing (p=0.000***). It shows that tenure has a moderating effect of ideation, invention and innovation (Afsar, Masood, & Umrani, 2019; Mustafa, Gavin, & Hughes, 2018; Tuan, 2019; Woods, 2018). Proving a clearer perspective, the role of long-tenured faculty cannot be taken for granted by managers since these faculty members can contribute much in organizational productivity. Hence, this finding implies that career stages and tenure are also factors influencing innovative behaviour.

In the context of the study, it was unraveled that the faculty members of the ELI manifested differences on their innovative work behaviour when grouped according to their gender, teaching position, and years of service. It implicates that those who are females, holding higher rank potions, and have been in the more of service are manifesting high level of innovative work behaviour. Comparing the result of the present study to literature, previous studies confirmed that personal and organizational factors are predictors of innovative work behaviour (Badoiu et al., 2020; Battistelli et al., 2019; Birdi et al., 2016; Cangialosiet al., 2020; Garg & Dhar, 2017; Hendel et al., 2020; Kim & Park, 2017; Montani et al., 2020; Shin et al., 2017).

Relationship between Knowledge Sharing Behaviour (KSB) and Faculty Innovative Behaviour

This study hypothesized that in the context of the ELI favourable or unfavourable knowledge sharing behaviour could either strengthen or weakened faculty innovative behaviour. The associations of the two significant dependent variables will help lessen the knowledge gap on the interactive outcome between knowledge sharing and innovative work behaviour of the EFL faculty members. While plethora of literature suggest that knowledge sharing promotes an individual innovative work behaviour through knowledge production and utilization (Al-Kurdi, El-Haddadeh, & Eldabi, 2020; Hameed et al., 2019; Hawryszkiewycz, 2019; Helmy, Adawiyah, & Banani, 2019; Li et al., 2019; Naeem et al., 2019; Shamim, Cang, & Yu, 2019; Weerakoon et al., 2019). There is still a shortage of studies looking at the specific dimensions of knowledge sharing behaviour and innovative behaviour which are correlated and congruent. In this study, relationships are explored as a way to address the identified research gap. Table 5 reveals the relationship between the domains of knowledge sharing behaviour and the factors of innovative faculty behaviour. The data showed that there is a significant relationship between KBS and IWB. Hence, then the null hypothesis of the study is rejected.

Table 5. Relationship of the factors

Variables	Idea Generation	Idea Exploration	Idea Championing	Idea Implementation
Written Contributions	r=0.202	r=0.104	r=0.532	**r=0.000**
	p= 0.126 ns	p= 0.06 ns	p= 0.219 ns	**p= 0.***
Organizational Communications	r=0.400	r=0.10	**r=0.29**	r=0.20
	p= 0.06 ns	p= 0.08 ns	**p= 0.0***	p= 0.34ns
Personal Interactions	r=0.222	r=0.180	**r=0.42**	**r=0.41**
	p= 0.200 ns	p= 0.06 ns	**p= 0.001***	**p= 0.***
Communities of Practice	**r=0.321**	r=0.058	r=0.103	r=0.235
	p= 0.000 *	p= 0.432 ns	p= 0.230 ns	p= 0.09 ns

Note: * p < 0.05; ** p < 0.01; *** p < 0.00 ns= not significant

Results of this analysis suggest that the conduct of knowledge exchange is positively linked to innovative conduct, published inputs and ideas (p=0.0**). The results indicate that faculty members who have demonstrated strongly favourable attitudes towards writing research papers, quick reports, policy reports, newsletters and magazines appear to value the usage of higher ideas as innovative job behaviour. It demonstrates that an individual's capacity to communicate written information is linked to his or her ability to conduct innovative activities. West and Bogers (2017) also reiterated the link between innovation status and research opportunities. Hernaus et al. (2019) stated that concept execution is among the antecedents of research publications. In addition, previous research has showed that the application and use of information is a required prerequisite for exchanging knowledge (He et al. 2019; Moreira & Evangelista 2018; Wojciechowski et al. 2019).

Thus in corporate communications as an exchange of information there was a clear positive connection to concept idea championing (p=0.00*), personal experiences of ideation (p=0.001**) and ideas (p=0.03 **), and the inference that the contact amongst organisations is linked to their ideas by the higher educational institution. In addition, the research revealed a beneficial interaction between practices groups as a behaviour exchanging information and the production of ideas (p=0.01**). Analysis has shown that teamwork is an important consideration for effective invention (Suhet al., 2018; Zach, 2016). Previous findings have also suggested that corporate contact is helpful and inspires workers directly to seek creativity and innovation in both public and private organisations (Dover & Lawrence, 2012; Lurtz & Kreutzer, 2017; Svensson et al., 2019).

In addition, the study shows that knowledge sharing among the members of the faculty of the ELI is connected to their innovative job behaviour. The activity towards knowledge sharing is connected to their innovative working behaviour, which means that the most likely they are to have their innovations usable or disseminated while individuals are immersed in an organisation of strong knowledge management activities, so as to retain the competitive advantage of their organisation. Studies have also shown that proactive knowledge-sharing is related to innovative innovation and creativity (Changet al., 2017; Elrehail et al, 2018; Hu & Zhao, 2016; Kremer et al., 2019; Olaisen & Revang (2017); Shujahat et al. (2019); Almulhim (2020).

CONCLUSION

This research contributes towards to the current academic literature by exploring the congruency between EFL faculty members' knowledge sharing behaviours (KSB) and their innovative work behaviours (IWB) in the context of the ELI. The study also explores differences on the knowledge sharing behaviours and innovative work behaviours of the faculty when category grouped into their profile variables. A descriptive correlation survey template was used in the analysis with a total of 48 EFL faculty members. The observation has been made that within the ELI, there is a tendency to disseminate preferred information to individuals of varying gender and faculty rank, yet the level of knowledge sharing activity remains at a moderate level. In the same way, the faculty members express high degree of innovative working behaviour. The statistical analysis indicates that there are significant differences in the extent to which innovative knowledge sharing is practiced among individuals based on gender, position and years of service. This outcome provides a strong image of how interventions can be started to improve the position of the ELI as an innovative national and global participant. It was also discovered that the faculty members of the ELI displayed variations in their job actions when categorized according to age, level of education, job Title, and years of service. Furthermore, it was noticed that there is a positive consensus among respondents between the conduct of knowledge sharing and innovative working behaviour. Prospective studies entail a comprehensive discussion of the theoretical framework, practical implementation, and limitations of the study.

Implications

The exchange of knowledge is not only a method of transmission of facts. It also encourages productive, innovative work behaviour among faculty members of the ELI in order to attain and retain the brand value of the University of Global Significance. The active role in exchanging information has a necessary effect on university operations and management with the overall aim of fostering creativity and innovation. This study summarizes the numerous ground-breaking work on the exchange of expertise and advancement of the ELI. In this regard, the researchers propose numerous realistic proposals: Firstly, ELI ought to embrace best practices in the sharing of knowledge and information by supporting a collegial atmosphere among its faculty members in order to facilitate their knowledge sharing and innovative behaviours. Therefore, ELI should develop a long-term faculty professional growth strategy stressing the fostering of innovative work activities, and analytical thought to make products, services, procedures methods, more effective teaching, sustainable institutional productivity, and success. Secondly, the ELI need to improve and expand its knowledge management to facilitate and develop the technical and operational systems, guidelines, research boards and groups, academic discussions, workshops, symposiums, conferences, reports, updating expertise and collaborative practices that lead to knowledge sharing behaviours among its faculty members. In this regard the research unit would have better resources for productive and efficient role. Thirdly, ELI can enhance the reward scheme by offering rewards for faculty members who have been writing research, reports, and courses and patenting the services, products or methods in order to be more inspired to work on innovation and to share knowledge. Fourthly, the ELI may need establishing a unit for knowledge sharing and innovative work activities.

Limitations and Future Research Direction

Despite achieving the objectives of this study, it is important to acknowledge its inherent limitations, particularly with regards to its focus on prospective studies. Initially, it should be noted that the analysis is limited by the small sample size of participants. The findings surveyed should be limited to the testing of variations. Subsequently, a rudimentary model for correlation analysis was employed, which resulted in the reduction of both data and variable assumptions to a minimum. A hybrid analysis design utilizing two or three approaches may be more accurate in order to triangulate the performance. Thirdly, it is recommended that future studies replicate or implement the research context in other university colleges to investigate the alignment between knowledge sharing behaviour and faculty members' innovative work behaviour in the context of the ELI and other universities in Saudi Arabia. Fourthly, the study's cross-sectional characteristic restricts the researchers to define the definite cause-related inferences between variables. Follow-up research would also strengthen and produce more understandable outcomes.

References

[1] Abramo, G., D'Angelo, C. A., & Murgia, G. (2013). Gender differences in research collaboration. Journal of Informetrics, 7(4), 811-822.

[2] Abualoush, S. H., Obeidat, A. M., Tarhini, A., & Al-Badi, A. (2018). The role of employees' empowerment as an intermediary variable between knowledge management and information systems on employees' performance. VINE Journal of Information and Knowledge Management Systems.

[3] Adams, K. (2006). The sources of innovation and creativity: a paper commissioned by the National Center on Education and the Economy for the New Commission on the Skills of the American Workforce. Washington DC: National Centre on Education and the Economy.

[4] Afsar, B., Masood, M., & Umrani, W. A. (2019). The role of job crafting and knowledge sharing on the effect of transformational leadership on innovative work behavior. Personnel Review.

[5] Akram, T., Lei, S., Haider, M. J., Hussain, S. T., & Puig, L. C. M. (2017). The effect of organizational justice on knowledge sharing: Empirical evidence from the Saudi telecommunications sector. Journal of Innovation & Knowledge, 2(3), 134-145.

[6] Alhammad, F., Al Faori, S., & Abu Husan, L. S. (2009). Knowledge sharing in the Jordanian universities. Journal of Knowledge Management Practice, 10(3), 1-9.

[7] Al-Husseini, S., El Beltagi, I., & Moizer, J. (2019). Transformational leadership and innovation: the mediating role of knowledge sharing amongst higher education faculty. International Journal of Leadership in Education, 1-24.

[8] Ali, A. A., Paris, L., & Gunasekaran, A. (2019). Key factors influencing knowledge sharing practices and its relationship with organizational performance within the oil and gas industry. Journal of Knowledge Management.

[9] Al-Kurdi, O. F., El-Haddadeh, R., & Eldabi, T. (2020). The role of organisational climate in managing knowledge sharing among academics in higher education. International Journal of Information Management, 50, 217-227.

[10] Al-Kurdi, O., El-Haddadeh, R., & Eldabi, T. (2018). Knowledge sharing in higher education institutions: a systematic review. Journal of Enterprise Information Management.

[11] Allen, M. T., & Sweeney, C. A. (2017). Faculty research productivity under alternative appointment types: tenure vs non-tenure track. Managerial Finance.

[12] Almulhim, Abdullah F. "Linking Knowledge Sharing to Innovative Work Behaviour: The Role of Psychological Empowerment." The Journal of Asian Finance, Economics and Business, vol. 7, no. 9, Korea Distribution Science Association, Sept. 2020, pp. 549–560, doi:10.13106/JAFEB.2020.VOL7.NO9.549.

[13] Andrews, J. O., Corbett, C., Dail, R. B., & Pinto, B. M. (2019). Rebuilding the research enterprise of a historical research intensive college of nursing. Nursing outlook, 67(3), 232-243.

[14] Antal, A. B., Debucquet, G., & Frémeaux, S. (2018). Meaningful work and artistic interventions in organizations: Conceptual development and empirical exploration. Journal of Business Research, 85, 375-385.

[15] Ardito, L., Ferraris, A., Petruzzelli, A. M., Bresciani, S., & Del Giudice, M. (2019). The role of universities in the knowledge management of smart city projects. Technological Forecasting and Social Change, 142, 312-321.

[16] Ardito, L., Ferraris, A., Petruzzelli, A. M., Bresciani, S., & Del Giudice, M. (2019). The role of universities in the knowledge management of smart city projects. Technological Forecasting and Social Change, 142, 312-321.

[17] Armoun, A., Sattari, S., & Namvar, Y. (2018). Determinant Factors which Influence Knowledge Sharing among Faculty Members of the University of Medical Sciences. Journal of Health, 9(3), 333-346.

[18] 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), 1127744.

[19] Badoiu, G. A., Segarra-Ciprés, M., & Escrig-Tena, A. B. (2020). Understanding employees' intrapreneurial behavior: a case study. Personnel Review.

[20] Bagheri, A., & Akbari, M. (2018). The impact of entrepreneurial leadership on nurses' innovation behavior. Journal of Nursing Scholarship, 50(1), 28-35.

[21] Bani-Melhem, S., Zeffane, R., & Albaity, M. (2018). Determinants of employees' innovative behavior. International Journal of Contemporary Hospitality Management.

[22] Bani-Melhem, S., Zeffane, R., & Albaity, M. (2018). Determinants of employees' innovative behavior. International Journal of Contemporary Hospitality Management.

[23] Battistelli, A., Odoardi, C., Vandenberghe, C., Di Napoli, G., & Piccione, L. (2019). Information sharing and innovative work behavior: The role of work-based learning, challenging tasks, and organizational commitment. Human Resource Development Quarterly, 30(3), 361-381.

[24] Behar-Horenstein, L. S., Beck, D. E., & Su, Y. (2018). Perceptions of pharmacy faculty need for development in educational research. Currents in Pharmacy Teaching and Learning, 10(1), 34-40.

[25] Bello, O. W., & Oyekunle, R. A. (2014). Attitude, perceptions and motivation towards knowledge sharing: views from universities in Kwara State, Nigeria. African Journal of Library, Archives & Information Science, 24(2), 123.

[26] Bellucci, A., & Pennacchio, L. (2016). University knowledge and firm innovation: evidence from European countries. The journal of technology transfer, 41(4), 730-752.

[27] Birdi, K., Leach, D., & Magadley, W. (2016). The relationship of individual capabilities and environmental support with different facets of designers' innovative behavior. Journal of Product Innovation Management, 33(1), 19-35.

[28] Blind, K., Pohlisch, J., & Zi, A. (2018). Publishing, patenting, and standardization: Motives and barriers of scientists. Research Policy, 47(7), 1185-1197.

[29] Bos-Nehles, A. C., & Veenendaal, A. A. (2019). Perceptions of HR practices and innovative work behavior: the moderating effect of an innovative climate. The International Journal of Human Resource Management, 30(18), 2661-2683.

[30] Bozeman, B., & Corley, E. (2004). Scientists' collaboration strategies: implications for scientific and technical human capital. Research policy, 33(4), 599-616.

[31] Cabrera, E. F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. The international journal of human resource management, 16(5), 720-735.

[32] Cangialosi, N., Odoardi, C., & Battistelli, A. (2020). Learning Climate and Innovative Work Behavior, the Mediating Role of the Learning Potential of the Workplace. Vocations and Learning, 1-18.

[33] Casimir, G., Lee, K., & Loon, M. (2012). Knowledge sharing: influences of trust, commitment and cost. Journal of knowledge management.

[34] Černe, M., Kaše, R., & Škerlavaj, M. (2016). Non-technological innovation research: evaluating the intellectual structure and prospects of an emerging field. Scandinavian Journal of Management, 32(2), 69-85.

[35] Chang, W. J., Liao, S. H., & Wu, T. T. (2017). Relationships among organizational culture, knowledge sharing, and innovation capability: a case of the automobile industry in Taiwan. Knowledge Management Research & Practice, 15(3), 471-490.

[36] Chang, Y. W., Hsu, P. Y., & Shiau, W. L. (2020). National Culture on Knowledge Sharing in the US and Saudi. In Novel Theories and Applications of Global Information Resource Management (pp. 81-108). IGI Global.

[37] Chen, H., Nunes, M. B., Ragsdell, G., & An, X. (2018). Extrinsic and intrinsic motivation for experience grounded tacit knowledge sharing in Saudi software organisations. Journal of Knowledge Management.

[38] Chen, Z., Deng, S., Mamtimin, A., Chang, J., Liu, F., & Ma, L. (2017, July). Exploring Factors Influencing Knowledge Sharing of International Students at Saudi University. In International Conference on Cross-Cultural Design (pp. 521-530). Springer, Cham.

[39] Chong, C. W., Teh, P. L., & Tan, B. C. (2014). Knowledge sharing among Malaysian universities' students: do personality traits, class room and technological factors matter?. Educational Studies, 40(1), 1-25.

[40] Chong, C. W., Yuen, Y. Y., & Gan, G. C. (2014). Knowledge sharing of academic staff. Library Review.

[41] D'Este, P., Ramos-Vielba, I., Woolley, R., & Amara, N. (2018). How do researchers generate scientific and societal impacts? Toward an analytical and operational framework. Science and Public Policy, 45(6), 752-763.

[42] De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behaviour. Creativity and innovation management, 19(1), 23-36.

[43] De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behaviour. Creativity and innovation management, 19(1), 23-36.

[44] Di Nauta, P., Merola, B., Caputo, F., & Evangelista, F. (2018). Reflections on the role of university to face the challenges of knowledge society for the local economic development. Journal of the Knowledge Economy, 9(1), 180-198.

[45] Dong, Y., Bartol, K. M., Zhang, Z. X., & Li, C. (2017). Enhancing employee creativity via individual skill development and team knowledge sharing: Influences of dual-focused transformational leadership. Journal of Organizational Behavior, 38(3), 439-458.

[46] Dover, G., & Lawrence, T. B. (2012). The role of power in nonprofit innovation. Nonprofit and Voluntary Sector Quarterly, 41(6), 991-1013.

[47] Duradoni, M., & Di Fabio, A. (2019). Intrapreneurial self-capital and sustainable innovative behavior within organizations. Sustainability, 11(2), 322.

[48] Eid, M. I., & Al-Jabri, I. M. (2016). Social networking, knowledge sharing, and student learning: The case of university students. Computers & Education, 99, 14-27.

[49] Elrehail, H., Emeagwali, O. L., Alsaad, A., & Alzghoul, A. (2018). The impact of transformational and authentic leadership on innovation in higher education: the contingent role of knowledge sharing. Telematics and Informatics, 35(1), 55-67.

[50] Elrehail, H., Emeagwali, O. L., Alsaad, A., & Alzghoul, A. (2018). The impact of transformational and authentic leadership on innovation in higher education: the contingent role of knowledge sharing. Telematics and Informatics, 35(1), 55-67.

[51] Feiz, D., Dehghani Soltani, M., & Farsizadeh, H. (2019). The effect of knowledge sharing on the psychological empowerment in higher education mediated by organizational memory. Studies in Higher Education, 44(1), 3-19.

[52] Fell, C. B., & König, C. J. (2016). Is there a gender difference in scientific collaboration? A scientometric examination of co-authorships among industrial–organizational psychologists. Scientometrics, 108(1), 113-141.

[53] Fisch, C. O., Block, J. H., & Sandner, P. G. (2016). Saudi university patents: quantity, quality, and the role of subsidy programs. The Journal of Technology Transfer, 41(1), 60-84.

[54] Franco, M., & Pinho, C. (2019). A case study about cooperation between University Research Centres: Knowledge transfer perspective. Journal of Innovation & Knowledge, 4(1), 62-69.

[55] Garg, S., & Dhar, R. (2017). Employee service innovative behavior. International Journal of Manpower.

[56] Gaviria-Marin, M., Merigó, J. M., & Baier-Fuentes, H. (2019). Knowledge management: A global examination based on bibliometric analysis. Technological Forecasting and Social Change, 140, 194-220.

[57] Ghani, U., Zhai, X., Spector, J. M., Chen, N. S., Lin, L., Ding, D., & Usman, M. (2020). Knowledge hiding in higher education: role of interactional justice and professional commitment. Higher Education, 79(2), 325-344.

[58] Girotra, K., Terwiesch, C., & Ulrich, K. T. (2010). Idea generation and the quality of the best idea. Management science, 56(4), 591-605.

[59] Goh, S. K., & Sandhu, M. S. (2013). Knowledge Sharing Among Malaysian Academics: Influence of Affective Commitment and Trust. Electronic Journal of Knowledge Management, 11(1).

[60] Gonondo, J. (2017). Africa and Saudi Higher Education Cooperation: Establishing Knowledge Sharing Partnership between Students. Journal of Education and Practice, 8(10), 17-28.

[61] Gonzalez, L. M., Wester, K. L., & Borders, L. D. (2019). Supports and barriers to new faculty researcher development. Studies in Graduate and Postdoctoral Education.

[62] Griffin, D. J., Bolkan, S., & Dahlbach, B. J. (2018). Scholarly productivity in communication studies: five-year review 2012–2016. Communication Education, 67(1), 88-101.

[63] Guerrero, M., Urbano, D., Fayolle, A., Klofsten, M., & Mian, S. (2016). Entrepreneurial universities: emerging models in the new social and economic landscape. Small Business Economics, 47(3), 551-563.

[64] Guo, H., & Laidlaw, D. H. (2018). Topic-based exploration and embedded visualizations for research idea generation. IEEE transactions on visualization and computer graphics.

[65] Hameed, Z., Khan, I. U., Sheikh, Z., Islam, T., Rasheed, M. I., & Naeem, R. M. (2019). Organizational justice and knowledge sharing behavior: The role of psychological ownership and perceived organizational support. Personnel Review, 48(3), 748-773.

[66] Hawryszkiewycz, I. (2019). Knowledge Sharing and Innovative Work Behavior: An Extension of Social Cognitive Theory. In Crowdsourcing and Knowledge Management in Contemporary Business Environments (pp. 71-102). IGI Global.

[67] He, W., Han, Y., Hu, X., Liu, W., Yang, B., & Chen, H. (2019). From idea endorsement to idea implementation: A multilevel social network approach toward managerial voice implementation. human relations, 0018726719882999.

[68] Helmy, I., Adawiyah, W. R., & Banani, A. (2019). Linking Psychological Empowerment, Knowledge Sharing, and Employees' Innovative Behavior in SMEs. The Journal of Behavioral Science, 14(2), 66-79.

[69] Hendel, T., Chor, R., Kigli-Shemesh, R., & Kagan, I. (2020). Personal and organizational factors related to initiative behavior among psychiatric nurses. Perspectives in Psychiatric Care.

[70] Hernaus, T., Maric, M., & Černe, M. (2019). Age-sensitive job design antecedents of innovative work behavior. Journal of Managerial Psychology.

[71] Howell, J.M., Shea, C.M. and Higgins, C.A. (2005) Champions of Product Innovations: Defining, Developing, and Validating a Measure of Champion Behavior. Journal of Business Venturing, 20, 641–61.

[72] Hu, A. G., Zhang, P., & Zhao, L. (2017). Saudi as number one? Evidence from Saudi's most recent patenting surge. Journal of Development Economics, 124, 107-119.

[73] Hu, B., & Zhao, Y. (2016). Creative self-efficacy mediates the relationship between knowledge sharing and employee innovation. Social Behavior and Personality: an international journal, 44(5), 815-826.

[74] Iqbal, M. J., Rasli, A., Heng, L. H., Ali, M. B. B., Hassan, I., & Jolaee, A. (2011). Academic staff knowledge sharing intentions and university innovation capability. African Journal of Business Management, 5(27), 11051.

[75] Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. Journal of Occupational and organizational psychology, 73(3), 287-302.

[76] Jia, X., Liao, S., Van der Heijden, B. I., & Guo, Z. (2019). The effect of socially responsible human resource management (SRHRM) on frontline employees' knowledge sharing. International Journal of Contemporary Hospitality Management.

[77] Jolaee, A., Nor, K. M., Khani, N., & Yusoff, R. M. (2014). Factors affecting knowledge sharing intention among academic staff. International Journal of Educational Management.

[78] Jyoti, J., Pereira, V., & Kour, S. (2019). Examining the impact of cultural intelligence on knowledge sharing: role of moderating and mediating variables. In Understanding the role of business analytics (pp. 169-188). Springer, Singapore.

[79] Kim, N., & Shim, C. (2018). Social capital, knowledge sharing and innovation of small-and medium-sized enterprises in a tourism cluster. International journal of contemporary hospitality management.

[80] Kim, W., & Park, J. (2017). Examining structural relationships between work engagement, organizational procedural justice, knowledge sharing, and innovative work behavior for sustainable organizations. Sustainability, 9(2), 205.

[81] Kleysen, R. F., & Street, C. T. (2001). Toward a multi-dimensional measure of individual innovative behavior. Journal of intellectual Capital.

[82] Kremer, H., Villamor, I., & Aguinis, H. (2019). Innovation leadership: Best-practice recommendations for promoting employee creativity, voice, and knowledge sharing. Business Horizons, 62(1), 65-74.

[83] Kulakli, A., & Mahony, S. (2014). Knowledge creation and sharing with Web 2.0 tools for teaching and learning roles in so-called University 2.0. Procedia-Social and Behavioral Sciences, 150, 648-657.

[84] Lafuente, E., & Berbegal-Mirabent, J. (2019). Contract employment policy and research productivity of knowledge workers: an analysis of Spanish universities. The International Journal of Human Resource Management, 30(16), 2360-2386.

[85] Landry, R., Saïhi, M., Amara, N., & Ouimet, M. (2010). Evidence on how academics manage their portfolio of knowledge transfer activities. Research policy, 39(10), 1387-1403.

[86] Larivière, V., Vignola-Gagné, E., Villeneuve, C., Gélinas, P., & Gingras, Y. (2011). Sex differences in research funding, productivity and impact: an analysis of Québec university professors. Scientometrics, 87(3), 483-498.

[87] Le, P. B., & Lei, H. (2019). Determinants of innovation capability: the roles of transformational leadership, knowledge sharing and perceived organizational support. Journal of Knowledge Management.

[88] Leahey, E. (2016). From sole investigator to team scientist: Trends in the practice and study of research collaboration. Annual review of sociology, 42, 81-100.

[89] Li, H., & Zhang, D. (2019, April). Exploration on the" Innovation and Entrepreneurship" Talent Training Program of Design Class in Local Colleges and Universities. In 3rd International Conference on Culture, Education and Economic Development of Modern Society (ICCESE 2019). Atlantis Press.

[90] Li, H., Sajjad, N., Wang, Q., Muhammad Ali, A., Khaqan, Z., & Amina, S. (2019). Influence of transformational leadership on employees' innovative work behavior in sustainable organizations: Test of mediation and moderation processes. Sustainability, 11(6), 1594.

[91] Liebowitz, J. (2019). Building organizational intelligence: A knowledge management primer. CRC press.

[92] Lurtz, K., & Kreutzer, K. (2017). Entrepreneurial orientation and social venture creation in nonprofit organizations: The pivotal role of social risk taking and collaboration. Nonprofit and Voluntary Sector Quarterly, 46(1), 92-115.

[93] Mahdi, O. R., Nassar, I. A., & Almsafir, M. K. (2019). Knowledge management processes and sustainable competitive advantage: An empirical examination in private universities. Journal of Business Research, 94, 320-334.

[94] Malerba, F. (2007). Innovation and the evolution of industries. In Innovation, Industrial Dynamics and Structural Transformation (pp. 7-27). Springer, Berlin, Heidelberg.

[95] Manjunath, L., & KK, S. (2016). Determinates of scientific productivity of agricultural scientists. Indian Research Journal of Extension Education, 11(21), 7-12.

[96] Mat, N., Alias, J., & Muslim, N. (2016). The impacts of organizational factors on knowledge sharing in higher learning instituitions (HLIs): Case at Universiti Kebangsaan Malaysia (UKM). Mediterranean Journal of Social Sciences, 7(6), 181.

[97] Milburn, L. A. S., & Brown, R. D. (2016). Research productivity and utilization in landscape architecture. Landscape and Urban Planning, 147, 71-77.

[98] Miller, K., McAdam, R., & McAdam, M. (2018). A systematic literature review of university technology transfer from a quadruple helix perspective: toward a research agenda. R&D Management, 48(1), 7-24.

[99] Ming-bin, Z. E. N. G., Chan, L. I., & Ling-juan, L. I. (2017). The Influence of Internal Social Capital on Innovation Performance of Scientific Research Team: Knowledge sharing as intermediary variable. Mathematics in Practice and Theory, 2017(16), 38.

[100] Montani, F., Courcy, F., & Vandenberghe, C. (2017). Innovating under stress: The role of commitment and leader-member exchange. Journal of Business Research, 77, 1-13.

[101] Montani, F., Vandenberghe, C., Khedhaouria, A., & Courcy, F. (2020). Examining the inverted U-shaped relationship between workload and innovative work behavior: The role of work engagement and mindfulness. Human Relations, 73(1), 59-93.

[102] Moreira, A. C., & Evangelista, A. G. F. (2018). Challenges of the Implementation of Research, Development, and Innovation Standards: A Case Study From a Glass Bottle Manufacturer. In Handbook of Research on Strategic Innovation Management for Improved Competitive Advantage (pp. 511-538). IGI Global.

[103] Mustafa, M., Gavin, F., & Hughes, M. (2018). Contextual determinants of employee entrepreneurial behavior in support of corporate entrepreneurship: a systematic review and research agenda. Journal of enterprising culture, 26(03), 285-326.

[104] Naeem, A., Mirza, N. H., Ayyub, R. M., & Lodhi, R. N. (2019). HRM practices and faculty's knowledge sharing behavior: mediation of affective commitment and affect-based trust. Studies in Higher Education, 44(3), 499-512.

[105] Nafukho, F. M., Wekullo, C. S., & Muyia, M. H. (2019). Examining research productivity of faculty in selected leading public universities in Kenya. International Journal of Educational Development, 66, 44-51.

[106] Naser, S. S. A., Al Shobaki, M. J., & Amuna, Y. M. A. (2016). Knowledge Management Maturity in Universities and its Impact on Performance Excellence" Comparative study".

[107] Naser, S. S. A., Al Shobaki, M. J., & Amuna, Y. M. A. (2016). Measuring knowledge management maturity at HEI to enhance performance-an empirical study at Al-Azhar University in Palestine.

[108] Ni, G., Cui, Q., Sang, L., Wang, W., & Xia, D. (2018). Knowledge-sharing culture, project-team interaction, and knowledge-sharing performance among project members. Journal of Management in Engineering, 34(2), 04017065.

[109] Obeidat, B. Y., & Tarhini, A. (2016). A Jordanian empirical study of the associations among transformational leadership, transactional leadership, knowledge sharing, job performance, and firm performance. Journal of Management Development.

[110]Obeidat, B. Y., Tarhini, A., Masa'deh, R. E., & Aqqad, N. O. (2017). The impact of intellectual capital on innovation via the mediating role of knowledge management: a structural equation modelling approach. International Journal of Knowledge Management Studies, 8(3-4), 273-298.

[111]Olaisen, J., & Revang, O. (2017). The dynamics of intellectual property rights for trust, knowledge sharing and innovation in project teams. International Journal of Information Management, 37(6), 583-589.

[112]Park, J. H., & Moultrie, J. (2010). Understanding university academics' internal and external knowledge interactions in different disciplines: Evidence from universities in South Korea. In Summer Conference.

[113]Paulus, P. B., & Yang, H. C. (2000). Idea generation in groups: A basis for creativity in organizations. Organizational behavior and human decision processes, 82(1), 76-87.

[114]Perkmann, M., & Walsh, K. (2007). University–industry relationships and open innovation: Towards a research agenda. International journal of management reviews, 9(4), 259-280.

[115]Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D'Este, P., ... & Krabel, S. (2013). Academic engagement and commercialisation: A review of the literature on university–industry relations. Research policy, 42(2), 423-442.

[116]Perry-Smith, J. E., & Mannucci, P. V. (2017). From creativity to innovation: The social network drivers of the four phases of the idea journey. Academy of Management Review, 42(1), 53-79.

[117]Ramachandran, S. D., Chong, S. C., & Ismail, H. (2009). The practice of knowledge management processes. Vine.

[118]Ramayah, T., Yeap, J. A., & Ignatius, J. (2014). Assessing knowledge sharing among academics: A validation of the knowledge sharing behavior scale (KSBS). Evaluation review, 38(2), 160-187.

[119]Ramjeawon, P. V., & Rowley, J. (2018). Knowledge management in higher education institutions in Mauritius. International Journal of Educational Management.

[120] Rhee, Y. W., & Choi, J. N. (2017). Knowledge management behavior and individual creativity: Goal orientations as antecedents and in-group social status as moderating contingency. Journal of Organizational Behavior, 38(6), 813-832.

[121] Ritala, P., Olander, H., Michailova, S., & Husted, K. (2015). Knowledge sharing, knowledge leaking and relative innovation performance: An empirical study. Technovation, 35, 22-31.

[122] Rumanti, A. A., Samadhi, T. A., & Wiratmadja, I. I. (2016, December). Impact of tacit and explicit knowledge on knowledge sharing at Indonesian small and medium enterprise. In 2016 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM) (pp. 11-15). IEEE.

[123] Ryu, S., Ho, S. H., & Han, I. (2003). Knowledge sharing behavior of physicians in hospitals. Expert Systems with applications, 25(1), 113-122.

[124] Salleh, K., Chong, S. C., Ahmad, S. N. S., & Ikhsan, S. O. S. S. (2013). The extent of influence of learning factors on tacit knowledge sharing among public sector accountants. VINE: The journal of information and knowledge management systems.

[125] Santosh, S., & Panda, S. (2016). Sharing of knowledge among faculty in a mega open university. Open Praxis, 8(3), 247-264.

[126] Schaeffer, V., Öcalan-Özel, S., & Pénin, J. (2020). The complementarities between formal and informal channels of university–Industry knowledge transfer: A longitudinal approach. The Journal of Technology Transfer, 45(1), 31-55.

[127] Scott, S. G., & Bruce, R. A. (1998). Following the leader in R&D: The joint effect of subordinate problem-solving style and leader-member relations on innovative behavior. IEEE Transactions on engineering management, 45(1), 3-10

[128] Seonghee, K., & Boryung, J. (2008). An analysis of faculty perceptions: Attitudes toward knowledge sharing and collaboration in an academic institution. Library & Information Science Research, 30(4), 282-290

[129] Shamim, S., Cang, S., & Yu, H. (2019). Impact of knowledge oriented leadership on knowledge management behaviour through employee work attitudes. The International Journal of Human Resource Management, 30(16), 2387-2417.

[130] Shanker, R., Bhanugopan, R., Van der Heijden, B. I., & Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. Journal of vocational behavior, 100, 67-77.

[131] Shannak, R., Maqableh, M., & Tarhini, A. (2017). The impact of knowledge management on job performance in higher education. Journal of Enterprise Information Management.

[132] Shin, S. J., Yuan, F., & Zhou, J. (2017). When perceived innovation job requirement increases employee innovative behavior: A sensemaking perspective. Journal of Organizational Behavior, 38(1), 68-86.

[133] Shujahat, M., Sousa, M. J., Hussain, S., Nawaz, F., Wang, M., & Umer, M. (2019). Translating the impact of knowledge management processes into knowledge-based innovation: The neglected and mediating role of knowledge-worker productivity. Journal of Business Research, 94, 442-450.

[134] Sohail, M. S., & Daud, S. (2009). Knowledge sharing in higher education institutions. Vine.

[135] Song, Z., Dong, Q., Cao, G., & Chen, Y. (2019). What will influence users' knowledge sharing behavior in the social Q&A community?. Proceedings of the Association for Information Science and Technology, 56(1), 762-764.

[136] Stupnisky, R. H., Hall, N. C., & Pekrun, R. (2019). Faculty enjoyment, anxiety, and boredom for teaching and research: instrument development and testing predictors of success. Studies in Higher Education, 44(10), 1712-1722.

[137] Suh, J., Harrington, J., & Goodman, D. (2018). Understanding the link between organizational communication and innovation: An examination of public, nonprofit, and for-profit organizations in South Korea. Public Personnel Management, 47(2), 217-244.

[138] Svensson, P. G., Mahoney, T. Q., & Hambrick, M. E. (2019). What Does Innovation Mean to Nonprofit Practitioners? International Insights From Development and Peace-Building Nonprofits. Nonprofit and Voluntary Sector Quarterly, 0899764019872009.

[139] Tan, C. N. L. (2016). Enhancing knowledge sharing and research collaboration among academics: the role of knowledge management. Higher education, 71(4), 525-556.

[140] Tuan, L. T. (2019). Can managing employee diversity be a pathway to creativity for tour companies?. International Journal of Contemporary Hospitality Management.

[141] Villani, E., Rasmussen, E., & Grimaldi, R. (2017). How intermediary organizations facilitate university–industry technology transfer: A proximity approach. Technological Forecasting and Social Change, 114, 86-102.

[142] Wang, G. (2019, November). Research on the Linkage between Knowledge Sharing among Science and Technology Enterprises and the Dissemination of Science and Technology Information. In 2019 International Conference on Machine Learning, Big Data and Business Intelligence (MLBDBI) (pp. 325-328). IEEE.

[143] Wang, J., Yang, J., & Xue, Y. (2017). Subjective well-being, knowledge sharing and individual innovation behavior. Leadership & Organization Development Journal.

[144] Wang, J., Yang, J., & Xue, Y. (2017). Subjective well-being, knowledge sharing and individual innovation behavior. Leadership & Organization Development Journal.

[145] Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. Human resource management review, 20(2), 115-131.

[146] Wang, X., Xie, Z., Zhang, X., & Huang, Y. (2018). Roads to innovation: Firm-level evidence from People's Republic of Saudi (PRC). Saudi Economic Review, 49, 154-170.

[147] Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. Expert systems with applications, 39(10), 8899-8908.

[148] Wang, Z., Wang, N., & Liang, H. (2014). Knowledge sharing, intellectual capital and firm performance. Management decision.

[149] Weerakoon, C., McMurray, A. J., Rametse, N. M., & Arenius, P. M. (2019). Social capital and innovativeness of social enterprises: opportunity-motivation-ability and knowledge creation as mediators. Knowledge Management Research & Practice, 1-15.

[150] Wei, C. C., Choy, C. S., Chew, G. G., & Yen, Y. Y. (2012). Knowledge sharing patterns of undergraduate students. Library Review.

[151] Wei, S. J., Xie, Z., & Zhang, X. (2017). From" Made in Saudi" to" Innovated in Saudi": Necessity, prospect, and challenges. Journal of Economic Perspectives, 31(1), 49-70.

[152] Wei, Z. (2018, July). Development And Exploration Of The Planning Idea Of Sponge City. In IOP Conference Series: Materials Science and Engineering (Vol. 392, No. 4, p. 042015). IOP Publishing.

[153] West, J., & Bogers, M. (2017). Open innovation: current status and research opportunities. Innovation, 19(1), 43-50.

[154] Wester, K. L., Borders, L. D., Gonzalez, L. M., & Waalkes, P. (2019). Factors contributing to scholarly productivity of assistant professors in counseling. Counselor Education and Supervision, 58(3), 225-237.

[155] White, C. S., James, K., Burke, L. A., & Allen, R. S. (2012). What makes a "research star"? Factors influencing the research productivity of business faculty. International Journal of Productivity and Performance Management.

[156] Wojciechowski, A., Becker, B., Kirchner, M., & Kreidler, B. (2019). Implementation of sustainability in innovation management: The Idea to People, Planet and Profit (I2P3®) Process. Journal of Business Chemistry, 1, 58.

[157] Wong, S. K. S. (2013). Environmental requirements, knowledge sharing and green innovation: Empirical evidence from the electronics industry in Saudi. Business Strategy and the Environment, 22(5), 321-338.

[158] Woods, S. A., Mustafa, M. J., Anderson, N., & Sayer, B. (2018). Innovative work behavior and personality traits. Journal of Managerial Psychology.

[159] Xie, Z., & Zhang, X. (2015). The patterns of patents in Saudi. Saudi Economic Journal, 8(2), 122-142.

[160] Xu, C. X., & Zou, J. (2010). Study on the impact of hotel employees' knowledge-sharing on service innovation. Tourism Tribune, 11, 66-72.

[161] Yi, J. (2009). A measure of knowledge sharing behavior: scale development and validation. Knowledge Management Research & Practice, 7(1), 65-81.

[162] Ying, Q., Fan, Y., Luo, D., & Christensen, T. (2017). Resources allocation in Saudi universities: hierarchy, academic excellence, or both?. Oxford Review of Education, 43(6), 659-676.

[163] Zach, F. (2016). Collaboration for innovation in tourism organizations: leadership support, innovation formality, and communication. Journal of Hospitality & Tourism Research, 40(3), 271-290.

[164] Zhao, T., Yang, J., Zhang, H., & Siu, K. W. M. (2019). Creative idea generation method based on deep learning technology. International Journal of Technology and Design Education, 1-20.

[165] Zhou, F., Chen, Q., & Wu, Y. (2019). How to foster frontline employee knowledge sharing within service-oriented enterprises: Empirical evidence from Saudi. Human Factors and Ergonomics in Manufacturing & Service Industries, 29(1), 22-30.

[166] Zhou, K. Z., & Li, C. B. (2012). How knowledge affects radical innovation: Knowledge base, market knowledge acquisition, and internal knowledge sharing. Strategic management journal, 33(9), 1090-1102.