Factors and variables to promote a knowledge-sharing culture change in higher education institutions of developing countries

Introduction

On the one hand, knowledge-sharing is a deliberate process of disseminating knowledge from one person to another person in an institution. On the other hand, knowledge application describes the practical use of knowledge that has been created, captured and put into the knowledge management (KM) cycle (Castaneda & Cuellar 2021). Knowledge-sharing is a very important process in higher education institutions for both the knowledge seekers and the generators of such knowledge. For knowledge-sharing to take place in an institution of higher learning, academics, who are the knowledge sources, must be motivated in some way to share their knowledge (Akosile & Olatokun 2019; Wang & Noe 2010). Thus, motivation is vital for all knowledge-based work and this helps to retain knowledge, build a community of practice and an organisational learning culture. Akanji et al. (2020) established that institutions of higher learning succeed because of their knowledge-sharing culture and they also decline because of that very same culture. In higher education institutions, knowledge-sharing is at the core of institutional innovation because knowledge is shared specifically to improve institutional performance. Because knowledge-sharing is voluntary, the process depends on the willingness of the concerned individuals and it involves active communication, talking to colleagues and effective collaboration.

This study identified factors and variables that are likely to stimulate a knowledge-sharing culture transformation at higher education institutions in developing countries, specifically Zimbabwe.
For knowledge to have a positive impact in any institution, it must be shared (Liu 2016; Leibowitz 2012; Nonaka & Takeuchi 1995). It is imperative to mention here that the factors analysed and discussed in this study are not the be-all and end-all. Only those factors that may positively contribute to a knowledge-sharing culture change are discussed. The study was carried out with the following objectives, designed to:

- examine factors and variables that are likely to encourage a knowledge-sharing culture change in higher education institutions
- recommend strategies to promote knowledge-sharing in higher education institutions.

The study contributes to scholarly knowledge by recommending the incentive systems which could stimulate a knowledge-sharing culture amongst academics in higher education institutions. Knowledge-sharing creates an awareness and the process cultivates learning and creativity, which is essential to solve complex problems in higher education institutions. The following section reviews literature on the factors and variables to encourage knowledge-sharing.

**Literature review**

Knowledge-sharing is an important KM process in organisations, including higher education institutions (Ramjeeawon & Rowley 2017). Academic institutions should look at ways of transferring knowledge from the experts to non-experts on time for the benefit of the institution. The process of knowledge-transfer and knowledge-sharing requires executive support to motivate the employees (Liu 2016). According to Fullwood and Rowley (2017), institutions of higher learning need to focus on using knowledge-based resources at their disposal. Knowledge-sharing allows workers to innovate and allow institutions of higher education to exploit knowledge-based assets (Lievre & Tang 2015). Knowledge-sharing should be prioritised in the higher education institutions of developing countries to preserve knowledge of experienced academics. Some of the factors that contribute to knowledge-sharing in higher education institutions include rewards, recognition, promotion and bonuses.

Rewards are incentives that motivate employees into becoming more productive in an institution. According to Mabaso and Dlamini (2018), rewards are tangible forms of motivation to attract and retain the best talent in institutions of higher education. It is therefore important to acknowledge people who participate in knowledge-sharing such that Ryan and Deci (2020) highlighted that motivation is an important element to initiate behaviour change and may show a discrepancy in terms of quality. Mabaso and Dlamini (2018) confirmed that academic experts share knowledge in the form of journal publications and they really appreciate seeing their valuable knowledge being used to solve real world problems. For that reason, academics have to be respected and as such rewards need to be promoted in higher education institutions, specifically in developing countries. Rewards are important in higher education institutions to increase employee performance and specifically boosting their morale. Rahab and Wahyumi (2013) stated that privately thanking employees with written notes and letters from executives is one way of acknowledging and motivating the academic cohort. Suliman (2019) confirmed that it is important to tailor rewards to what motivates and drives different groups of people in an institution. In line with the submissions by Rahab and Wahyumi (2013) and Mabaso and Dlamini (2018), we can deduce that rewards strengthen employee value proposition and contribute effectively to employee well-being.

Recognition in higher education institutions improves team culture and allows access to top talent, which is needed by almost any institution in a developing country. Suliman (2019) maintained that recognition contributes to employee retention and engagement. Recognition for knowledge-sharing should therefore start from the executive team by acknowledging the knowledgeable individuals in academic institutions. Recognition by top management is significantly consistent in the KM literature where Frost (2014) and Girard and Girard (2015) concurred that KM efforts in knowledge-intensive organisations call for executive support. Recognition may be at any level within a higher education setting. At individual level, knowledge-sharing gives people opportunities to identify and recognise them as experts in their respective fields. It is therefore important to acknowledge that recognition allows employees to feel engaged and confer upon them a sense of belonging. From the literature review findings, we can further confirm that employee recognition decreases employee turnover and increases retention of quality employees.

Chen, Nunes and Ragsdell (2018) established that promotion is an institutional initiative, which inspires employees to compete and get ahead of others. According to Salas-Vallina, Alegre and Fernandez (2017), promotion is an ancient form of motivation, which is still very useful in many organisations including academic institutions. We can therefore argue that promotion inspires employees to remain loyal and committed to their jobs and the institutions. Rosyidah and Rosyidi (2019) posited that promotion based on merit characteristically motivates employees to share knowledge in academic institutions. This certainly enhances the employees to use their knowledge and experience for the benefit of the institution as a whole. Bonuses are also old forms of motivation that could contribute to nurturing a knowledge-sharing culture change in higher education institutions of developing countries. To this date, many academics feel that their hard work and knowledge-sharing efforts are acknowledged when they get bonuses (Stenius et al. 2016). In essence, bonuses are institutional investments that inspire employees to work better and drive those institutions to compete globally. Akosile and Olatokun (2019) stated that bonuses engage employees to boost institutional effectiveness. From a management perspective, giving bonuses to employees is a signal of employer appreciation, which may promote efficiency. The methodology adopted follows.
Research design and methodology

A quantitative approach using a survey strategy was adopted and used to gather facts from purposefully selected participants in Zimbabwe, one of the developing countries in Africa. A survey strategy was adopted because of high representativeness to generate generalisable results at relatively low costs. The participants were drawn from a higher education institution staffed with highly qualified academics, meaning that the results are generalisable to other higher education institutions. The quantitative data were gathered using a structured online questionnaire and analysed by using Microsoft Office Excel 2019, a spreadsheet package. The spreadsheet package chosen for data analysis provides superb charting capabilities for data presentation and visualisation. The internal tests for consistency were carried out to increase the validity and reliability of the final research findings. The sample comprised 90 participants from the higher education institution identified in Zimbabwe, and excitingly, the response rate was 66.6%.

The study followed the six steps by Massaro, Dumay and Garlatti (2015) to explore the research problem as described in the following section.

Defining the research questions

After a thorough literature review on the topic, the researchers established that there is still a knowledge-sharing problem in higher education institutions of developing countries. The study therefore answers the following research questions: RQ1: What factors could be put in place to encourage a knowledge-sharing culture change in higher education institutions? RQ2: Which strategies could be recommended to promote knowledge-sharing in higher education institutions?

Research protocol for the review

Even though there is a lot of literature published on knowledge-sharing in higher education, the problem still exists especially in developing countries (Chen et al. 2018). The review evaluates the factors that could be considered by higher education institutions to inspire knowledge-sharing. The review also assesses the different strategies, which could be adopted by higher education institutions in promoting knowledge-sharing.

Determining the articles to include in literature search

The extant literature published in the past 5–10 years was sourced from academic databases, specifically Scopus and the Web of Science because these databases provide only index peer-reviewed and reputable journals. Non peer-reviewed articles and books were excluded in the search criteria because they affect the scientific quality of research. In addition non peer-reviewed articles damage the reputation of both the researcher and the institution.

Developing a coding framework

The coding framework used was adopted from Dumay and Garanina (2013) to extract relevant information from the previous studies. The major categories used in the coding framework included the journals, the research method and the themes. Some of the journals used included the Electronic Journal of Knowledge Management and the Learning Organisation Journal. The following keywords were used during the systematic literature search: KM, knowledge-sharing, higher education institutions, motivation, recognition and rewards. The research methods were both quantitative and qualitative. On the same coding framework, the themes that emerged encompassed recognition, promotion and rewards.

Coding the articles and ensure reliability

Content analysis was used to code the reliability tests.

Critically analysing and discussing the results

The following section presents and analyses the data to answer RQ1 ‘What factors could be put in place to encourage a knowledge-sharing culture change in higher education institutions?’ and RQ2 ‘Which strategies could be recommended to promote knowledge-sharing in higher education institutions?’

Ethical considerations

Ethical clearance with reference 2021/CSET/SOC/041 was granted from the University of South Africa’s College of Science, Engineering and Technology’s (CSET) Research and Ethics Committee. The ethical clearance is valid for a period of 5 years effective 14 September 2021.

Results and discussion

The purposefully selected participants answered the questions asked as shown in Figures 1, 2, 3, and 4, of this article. Responses from the 5-point Likert type questions were analysed collectively and presented in the following bar graphs per factor. The questions sought to measure the level of agreement with the propositions identified in literature and the possible reasons for choosing those options.

Rewards for knowledge sharing in higher education institutions

Academics should be encouraged and motivated to share their knowledge with their peers and the community they serve. Figure 1 depicts an analysis of the responses obtained from the academics at an institution of higher learning in Zimbabwe on different hypotheses.

Based on the empirical evidence collected, analysed and presented in Figure 1, it was established that 28.3% of the participants responded positively to the proposition that tailoring rewards motivates different groups of people in an institution. On the same principle, exactly 50% of the
participants were not sure if tailoring rewards is really important to permit knowledge-sharing. Also, 21.7% of the partakers responded negatively to the fact that tailoring rewards is imperative in academic institutions. It also emerged that 53.3% of the participants approved that knowledge-sharing is dependent on the willingness of the individual, as confirmed by Mabaso and Dlamini (2018). On the same proposition, 23.3% of the participants were indecisive whilst the other 23.3% disagreed completely that knowledge-sharing is dependent on the willingness of the individual. People, specifically academics are the key resources in generating new knowledge within any higher education institution. Rewards for sharing knowledge efforts are critically important in higher education institutions to the extent that 91.7% of the participants approved the proposition. Only 8.3% of the participants were not sure if rewards for knowledge-sharing are important as shown in Figure 1. From the submissions by the participants, we can underscore that it is imperative to acknowledge people who participate in knowledge-sharing through rewards. Moreover, we can deduce that effective knowledge-sharing in higher education depends on the willingness of an individual who has been rewarded accordingly. Rewards therefore help academics to feel engaged and this may certainly change their knowledge-sharing culture.

**Recognition for knowledge-sharing in higher education institutions**

Recognition for knowledge-sharing should start from the executives by acknowledging the knowledgeable individuals in academic institutions (Ramjeawon & Rowley 2017). Figure 2 presents the analysis of responses obtained from academics at an institution of higher learning in Zimbabwe.

Academic institutions should be recognised globally and this recognition is also linked to the members of the academic team (Abdulrahman & Alharbi 2016). It was interesting to establish that 95% of the participants responded positively to the proposition that recognition adds value to the academic institutions. This recognition could be for the academic or for the institution as a whole. Only 1.7% of the participants were indecisive whilst 3.3% were negative on recognition adding value to the academic institutions. Findings in this study also established that 80% of the participants concurred that recognition contributes to employee retention and engagement. Only 16.7% of the participants were not sure if recognition contributes to employee retention and engagement in higher education institutions studied. Unfortunately, 3.3% of the participants responded negatively to the proposition that recognition contributes to employee retention and engagement. These findings are consistent in literature where Suliman (2019) maintained that recognition contributes to employee retention and engagement.

It was interesting to confirm that 88.3% of the participants settled on the suggestion that recognition as a knowledge-sharing initiative allows access to top talent in academic institutions. On the same principle 11.7% of the participants were not sure if recognition permits access to the best talent in an academic institution. The data generated and analysed confirms that the institution recognises employees for knowledge-sharing such that 58.3% of the participants agreed with the proposition. Only 25% of the participants were not sure if the institutions recognise employees for knowledge-sharing. Lastly, 16.7% of the participants disagreed with the proposition that their institution recognises employees for knowledge-sharing. In order to contribute to a knowledge-sharing culture, institutions of higher learning in developing countries need to benchmark strategies for recognising academics for effective knowledge-sharing.

**Promotion in higher education institutions**

Salas-Vallina et al. (2017) established that promotion has been confirmed as a motivation mechanism that encourage knowledge-sharing in knowledge-intensive organisations, specifically higher education institutions. Figure 3 shows the responses collected from the academics at a higher education institution in Zimbabwe.

Promotion based on merit substantially motivates employees to share knowledge and in this study, 68.3% of the participants approved the proposition. Moreover, 11.7% of the participants were not sure whilst the other 20% of the participants disagreed that promotion based on merit.
motivates employees to share knowledge as shown in Figure 3. On encouraging employees to remain loyal and committed to their jobs, 68.3% of the research participants agreed to the proposition. In an academic institution, loyalty encourages employees to give their best and perform to the highest of academic standards (Rosyidah & Rosyidi 2019). Also, 18.3% of the participants were not sure if promotion reassures employees to remain loyal and committed to their jobs. Unremarkably, 13.3% of the participants disagreed that promotion inspires employees to remain loyal and committed to their jobs in higher education institutions.

Promotion inspires employees to compete and get ahead of others, especially in higher education institutions (Chen et al. 2018). A majority of the participants (58.3%) concurred that promotion is an inspiration for employees to compete ahead of others in an academic institution. On the same suggestion, 26.7% of the participants were indecisive whilst 15% differed in terms of opinion on promotion inspiring employees to compete and get ahead of others. From the submissions by the academics, we can therefore deduce that promotion is an old form of motivation but still very effective in most organisations, including higher education institutions where this study was conducted. Promotion in higher education institutions increases employee loyalty.

Bonuses for knowledge-sharing in higher education institutions

Many academics feel that their hard work and knowledge-sharing efforts are acknowledged when they are given bonuses (Stenius et al. 2016) and Figure 4 shows the responses from this study.

Bonuses are seen as a sign of employee appreciation that may accelerate efficiency and more than 50% of the partakers approved the proposition. On the same proposition, 23.3% of the participants were indecisive and exactly 11.7% of the participants disagreed that bonuses are a sign of employee appreciation. It is therefore not an exaggeration that bonuses are forms of motivation that still exist in most higher education institutions of developing countries such as Zimbabwe where this study took place. Fascinatingly, 73.3% of the participants established that academics are recognised when they receive bonuses. On the same offer, 15% of the participants were not sure if their work is recognised by receiving bonuses. In tandem, 11.7% of the participants disagreed to the proposition that employees are recognised when they receive bonuses.

Bonuses encourage employees to work better in future to an extent that 51.7% of the participants agreed to the suggestion. On the same principle, 31.7% of the participants...
were not sure if bonuses encourage employees to work better in higher education institutions. Also, 16.7% of the participants differed from the rest and submitted disagreeing to the offer that bonuses encourage employees to work better in future. Mabaso and Dlamini (2018) confirmed that bonuses inspire employees to raise their performance levels to meet business goals, especially in higher education institutions. From these findings, we can therefore confirm that bonuses in academic institutions motivate employees and this creates and builds team collaboration.

**Conclusion**

Rewards, recognition, promotion and bonuses are some of the important factors that could be implemented to promote a knowledge-sharing culture change in developing countries such as Zimbabwe, where this study took place. Findings from this study confirm that incentive systems could drive academics to share knowledge. It emerged that knowledge-sharing requires motivation to the extent that 78% of the participants concurred with the proposition. From the empirical evidence gathered, presented and analysed, we can conclude that rewards strengthen employee value proposition. We can therefore extrapolate that promotions and rewards are ideal in higher education institutions of developing countries such as Zimbabwe. It was interesting to establish that 95% of the participants responded positively to the proposition that recognition adds value to the academic institutions. Exactly 80% of the participants submitted that recognition contributes to employee retention and engagement, which is very vital to promote a knowledge-sharing culture change. We can therefore conclude that recognition is another important factor that contributes to employee retention and engagement. As a matter of fact, recognition for the institution as a knowledge-sharing initiative allows access to top talent in higher education institutions.

Promotion is another institutional factor that could promote knowledge-sharing culture change in higher education and this requires executive support to sponsor the knowledge-sharing efforts. The promotion initiative inspires employees to compete and get ahead of others and this undoubtedly enhances the employees to reuse their knowledge and experience to the benefit of the institution. It is therefore logical to highlight that promotion significantly motivates employees to share knowledge in higher education institutions. Bonuses are seen as a sign of employee appreciation and this may stimulate the knowledge-sharing culture change. More than 50% of the participants agreed that bonuses are a signal of employee appreciation and may accelerate institutional efficiency. Bonuses encourage employees to work better in future and this encourages effective knowledge-sharing in higher education institutions. The link between knowledge-sharing by academics and the possibility of critical rewards consolidates the construct that incentives for knowledge-sharing other than monetary should be the centre of institutional practices in the knowledge economy.

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**Authors’ contributions**

A.H.M. collected the data from an institution of higher learning in Zimbabwe and wrote this article. P.M., as the study supervisor gave direction and all the necessary support in writing this research article. Both writers read and approved the final draft of the document.

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Data availability
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