Digitally measuring the knowledge sharing for employee's performance appraisal

Saqib Shamim[1], Shuang Cang[2], Hongnian Yu[1], Yun Li[3]
[1]Faculty of Sciences and Technology, Talbot Campus, Bournemouth University, UK
[2]Faculty of Management, Talbot Campus, Bournemouth University, UK
[3]School of Computer Science and Network Security, Dongguan University of Technology, Guangdong 523808, China

Bournemouth University

Problem

Researchers acknowledge the importance of knowledge sharing and innovative capability to meet the new requirements of the digital age. However many employees do not want to share their knowledge with other colleagues because they think that it may reduce the chances of their promotion because of intra-organizational competition, and lack of compensation for knowledge sharing [1,2].

Why employees don't share the knowledge

- Intra-departmental competition with colleagues for promotion and rewards [1,2]
- Lack of compensation [1,2]
- Lack of knowledge sharing culture
- Lack of knowledge sharing platform

Potential remedy

- One of the potential remedies for this problem, suggested by management scholars is to link the knowledge sharing with employee performance appraisal [3].
- In this way knowledge sharing by any employee will carry weightage in his/her performance appraisal and increases the chances of promotion, which compensate the knowledge sharing by employees [4].

Major challenge

- One of the major challenges to implement this idea of linking knowledge sharing with performance appraisal is to objectively measure knowledge sharing in performance appraisal.
- Existing literature is limited to the suggestion of including knowledge sharing in performance appraisal, but do not answer how to measure it objectively in performance appraisal.
- Suggestions for group incentives against knowledge sharing are also there in the existing literature [5,6], but objective measurement is missing.

Proposed solution

- This study provides a solution by proposing the use of cyber *ba* to share the knowledge and to digitally measure the knowledge sharing effectiveness of individual employee, to be used in performance appraisal.
- In the digital age, cyber *ba* becomes more important for the effective and efficient sharing of organizational and personal knowledge which enhances the innovative capability of the firm.
- This study enlightens the need and importance of cyber *ba,* which is especially and explicitly designed to share the knowledge and innovative ideas among employees.
- This study also emphasises on the design and development of a digital system (cyber *ba*) and suggests the mechanism for measuring knowledge sharing and linking with performance appraisal.
- Through this mechanism of using cyber *ba* to link knowledge sharing with employee performance appraisal for objective evaluation of knowledge sharing effectiveness, organizations can promote the culture of knowledge sharing among employees. It provides a formal, efficient, and effective platform to manage the knowledge, specially the transfer of knowledge

Cyber *ba*

- *Ba* refers to a shared space for knowledge sharing, and Cyber *ba* is any digital platform which can be used as a source of knowledge sharing [8].
- *Ba* is discussed in literature as determinant of work performance, *ba* can be in different forms for example originating *ba*, Dialoguing *ba*, exercising *ba*, and cyber *ba* [7].

Mechanism

This system should facilitate the following things.
1. Knowledge acquisition; knowledge request as input.
2. List of available and relevant experts in the system.
3. Knowledge sharing as response of knowledge acquisition request.
4. Measurement of the frequency of knowledge sharing by individual employees.
5. Measurement of the frequency of knowledge used by different employees, shared by any particular employee
6. Finally report on employee effectiveness for knowledge sharing, which is based on the number of times employee share knowledge, and number of times other employees use his/her knowledge, shared in the system
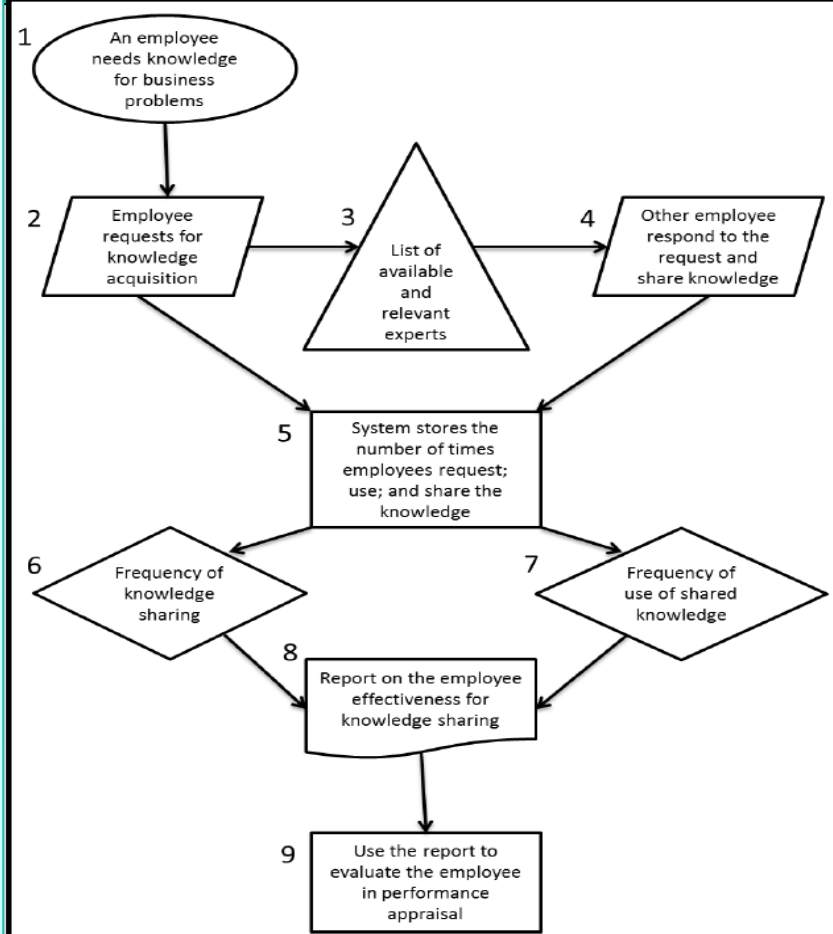
Implication

- Using this mechanism for knowledge sharing measurement, organizations can also promote the culture of collaborative knowledge sharing, because it can increase the motivation if employees know that knowledge sharing, and the use of their knowledge by others have weightage in their performance appraisal, and it is being measured digitally and continuously.
- This system should be installed in any electronic device which is in use of employee at workplace e.g. computer, mobile, and every employee of the organization should be connected to this cyber *ba*.

Future research plan

- After the development of prototype, this system will be tested in the organizations, and its impact on knowledge sharing performance will be measured by longitudinal research design, i.e. knowledge sharing will be quantitatively measured two times, i.e. before implementing this system, and one month after implementing this system.
- Impact of implementing this system on overall performance of an appraisal system; and on employee performance, will be measured using quantitative analysis, i.e. structure equation modelling.
- Qualitative study to explore the barriers; enablers; and consequences of implementation of cyber *ba* with the ability to digitally measure knowledge sharing, to be used in performance appraisal.

References:

[1] Bock, G.-W.; Zmud, R.W.; Kim, Y.-G.; Lee, J.-N. Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. MIS quarterly 2005, 87-111.
[2]Uriarte, F. Introduction to knowledge management. Jakarta: ASEAN Foundation 2008.
[3]Shamim, S.; Cang, S.; Yu, H.; Li, Y. In Management approaches for industry 4.0: A human resource management perspective, Evolutionary Computation (CEC), 2016 IEEE Congress on, 2016; IEEE: pp 5309-5316.
[4] Shamim, S.; Cang, S.; Yu, H.; Li, Y. Examining the feasibilities of industry 4.0 for the hospitality sector with the lens of management practice. Energies 2017, 10, 499.
[5] Kang, S.; Morris, S.; Snell, S. Extending the human resource architecture: Implications from social capital theory. *paper submitted for publication* 2003.
[6] Cabrera, E.F.; Cabrera, A. Fostering knowledge sharing through people management practices. *The International Journal of Human Resource Management* 2005, *16*, 720-735.
[7] Sujatha, R.; Krishnaveni, R. Knowledge creating ba as a determinant of work performance of employees: An empirical analysis among pump manufacturing firms in south india. *Asia Pacific Management Review* 2017