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A Effects of Intrinsic Rewards on Knowledge Sharing Behaviour in HEI: The Role of Conscientiousness

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Abstract

The purpose of this paper is to investigate the mediating and moderating effects of conscientiousness on the relationship between intrinsic rewards and knowledge sharing behaviour in Higher Education Institutions of Himachal Pradesh. Data were gathered from 116 faculty staff of private universities using questionnaires about intrinsic rewards, knowledge sharing and conscientiousness. Data was analysed using multiple hierarchical regression and Preacher and Hayes (2004) approach. The result shows as follows: Conscientiousness can be regarded as a mediating variable and a moderating variable between intrinsic rewards and knowledge sharing behaviour.

Keywords: *Knowledge Sharing Behaviour, Conscientiousness, Intrinsic Rewards, Higher Education Institutions, Rewards*

INTRODUCTION

In order to stay relevant and to survive in the present knowledge economy, knowledge management has become an important weapon. Knowledge is a vital resource and an intellectual asset for every organization. Knowledge need to be appropriately managed by the organizations as it is a significant source of value creation for them (Massa and Testa, 2009). Knowledge is considered as the most important source of competitive advantage for any organization (Stewart, 1997). Research on Knowledge Management (KM) has largely been focussed on knowledge-intensive organisations. However, the concept is not just important for corporate world but for

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every industry including higher education sector. The application of the concept is even more pertinent in the context of higher education institutions (HEI), as they operate within the framework of knowledge dissemination.

A report submitted by Yashpal Committee to HRD minister in June 2009 stated "the dire state of higher education in India and the need of meaningful reforms for quality education" (Arun, 2010). The committed suggested that the "Universities must create new Knowledge". Universities other than making people capable of creating wealth must also play an important role in the holistic development of the society and the world (Arun, 2010)**.** Rowley (as cited in Dhamdhere, 2015) stated that higher education institutions have always been identified and recognized as essential entities for various knowledge processes. They are repositories for successfully creating and disseminating knowledge. Effective knowledge management is of immense importance for educational institutions and can provide numerous benefits to these organizations. For instance, effective knowledge management can increase the quality of education and research. It can also help educational institutions in talent management thereby retaining the best faculty and the researchers. Also, KM can facilitate educational institutions in developing new curriculum, improving cost efficiency and going beyond the limits of time and space, thereby meeting students' expectations (Dhamdhere, 2015).

Knowledge Management

Knowledge Management (KM) is defined as the recording, refining, distribution and application of knowledge (Bose, 2004). Knowledge sharing is one significant constituent of knowledge management. Knowledge sharing as defined by Lee (2001) is "a set of activities of transferring or disseminating knowledge from one person, group or organization to another". It can take place through written communication or face-to-face communication or documenting, organizing and capturing knowledge for others.

Rewards

Rewards are various incentives plans offered by the organizations to reinforce desirable behaviour among workers or employees of the organization. There are multiplicities of reward programs that can be found in organizations. Rewards can be intrinsic and extrinsic. Extrinsic

incentives can take form such as monetary rewards, promotion, recognition, job security. Individuals are motivated extrinsically when they are engaged in work to accomplish some goal other than the work itself (Amabile, 1993). On the other hand, individuals are intrinsically motivated when they seek enjoyment, interest, satisfaction, or self-expression in the work itself (Lee & Ahn, 2007). For instance, individuals can be contented in their abilities to do contribute to the organization and/or to assist others in the organization (Lee & Ahn, 2007).

Conscientiousness

Conscientiousness, one the personality traits, signified by individual attributes such as keeping neat, being punctual, cautious, self-disciplined and dependable (Gupta, 2008). Borges defined conscientiousness as the tendency to be responsible, dependable, persistent, punctual, hard-working and work oriented (Agyemang, Dzandu & Boateng, 2015). Individuals who attain high on conscientiousness have a tendency to be achievement-oriented, self-motivated and task-oriented (Barrick & Mount, 1993). Such individuals are expected to engage in activities that require them to look ahead of their role and responsibilities. As a result, these persons are expected to be eager to share knowledge (Agyemang, Dzandu & Boateng, 2014).

REVIEW OF LITERATURE

Knowledge sharing in its intrinsic nature is an intrapersonal issue. Whether to help a colleague/peer by sharing knowledge or not may depend primarily on the desire of an employee (Brcic & Mihelic, 2015). For organizations to be effective, employees need to be motivated to share knowledge. Rewards are a means of motivating people. Knowledge management entail measures of motivation and thus a number of establishments use incentives to promote knowledge sharing among its employees. According to Constant et al., for preparation of knowledge for sharing purpose, a cost is involved, and individuals may not share unless they are duly compensated. If the benefits exceed the cost, individuals will share knowledge (Bock, Siew & Kang, 2009). Organizations use rewards in the belief that they will encourage performance and foster continuous learning. Purwanti et al. (as cited in Karagoz, Agras & Mesci, 2015) opined that the reward system can determine the knowledge flow in

the organization and also the way to retrieve such knowledge. Employing incentives can motivate employees to create new knowledge and share the existing knowledge with others (Karagoz, Agras & Mesci, 2015).

Al-Alawi et al. (2007) in their study stated that organizations' reward system should be aligned with in order to promote knowledge sharing. Lin (2007) opined that an organization reward is one of the most important factors in promoting knowledge sharing activities. Foss *et al.* (2009) found a very strong and positive impact of intrinsic motivation on knowledge sharing. Research by Sajeva (2014) showed that intrinsic rewards such as a) belonging and sharing common values; b) achievement and success; c) competence; d) usefulness; e) respect and recognition; and f) trust, have a positive and significant impact on sharing of knowledge among employees. Hall (2001) also demonstrated in his research that knowledge exchange is supported by various implicit rewards such as reputation and status. Wasko & Faraj (2000) suggested in their study that employees who are intrinsically motivated contribute more towards knowledge sharing because they enjoy helping out others. Galia (2007) also suggested important role of intrinsic motivation in knowledge management sharing. Rehman, Mahmood & Salleh (2011) opined in their article that intrinsic rewards play more important role in knowledge sharing as compared to extrinsic rewards because intrinsic rewards are "in-built" and therefore lasts longer. Thus intrinsic rewards have a strong influence on the knowledge sharing behaviour of employees.

Knowledge sharing is also a result of various individual level factors such as personality. According to Hutasuhut (2007) personality as a characteristic of individual personality has a significant role in constructing attitude towards knowledge sharing behaviour. Out of the "big five" personality dimensions viz. - extraversion, emotional stability, agreeableness, conscientiousness and openness to experience-conscientiousness have been found to be most closely associated with knowledge sharing (Borges, 2013). Researchers in the past have found that individuals with stable personality traits such as conscientiousness are more likely to exhibit knowledge sharing behavior (Kim, Shin & Swanger, 2009; Hendriks 1999; Matzler et al., 2008; Lotfi, Muktar, Ologbo & Chiemeke, 2016; Wang & Yang, 2007). Kim, Shin & Swanger (2009) stated conscientiousness as one of the most important personality traits in explaining knowledge sharing behaviour among individuals. Gupta (2008) suggested that high conscientiousness employees engage more in activities which leads to acquisition of new knowledge. Also, such

individuals engage in more knowledge sharing activities (Gupta, 2008). According to Hendriks (1999) people score high on conscientiousness feel self-esteem in sharing knowledge. Such individuals during their interaction with others reflect themselves as a knowledge testimony (Anwar, 2017). Gupta (2008) stated that high conscientious people by their nature might do a superior job to solve problems mutually so as to find solutions that are acceptable to all parties. Lotfi et al. (2016) reported positive and significant influence of conscientiousness on knowledge sharing behavior of individuals. Similarly, Wang & Yang (2007) also found significant relationship between conscientiousness and knowledge sharing.

Based on the above arguments, the study proposes that:

H1: There is a significant positive relationship between satisfaction with intrinsic rewards and knowledge sharing behaviour.

H2: Conscientiousness moderates the relationship between intrinsic rewards and knowledge sharing behaviour such that knowledge sharing behaviour will be stronger for employees high in conscientiousness than those for low in conscientiousness.

H3: Conscientiousness would mediate the relationship between intrinsic rewards and knowledge sharing behaviour of employees.

RESEARCH METHODOLOGY

Participants and Procedure

The present research is based on primary data. The data was collected through a survey conducted on the sample consisting of 116 faculty members of higher education institutions of Himachal Pradesh. A well designed questionnaire was prepared and administered among respondents in order to get the required information. The respondents were selected using convenience and judgement sampling techniques. The data thus collected have been analyzed with the help of SPSS 21.

Measurement Instruments

The short form of Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Dawis, England & Lofquist, 1967) was used to study intrinsic rewards. Table 1 lists the intrinsic rewards MSQ scales used in the present study.

For studying knowledge sharing behaviour of respondents, items from the study by Agyemang, Dzandu and Boateng (2015) were used.

The variables were measured on five point Likert scale ranging from strongly disagree-1 to strongly agree-5. Internal consistency reliability (Cronbach's Alpha) for this scale was reported as α=.65.

Conscientiousness was measured using Big-Five Personality Framework. The items in the study were adopted from John & Srivastava (999). The variables were measured on five point Likert scale ranging from strongly disagree-1 to strongly agree-5. Internal consistency reliability (Cronbach's Alpha) for this scale was reported as α=.94.

Table 1: List of Intrinsic Rewards

Ability Utilization	The chance to do something that makes use of my abilities
Moral Values	Being able to do things that do not go against my conscience
Achievement	The feeling of accomplishment I get from the job
Creativity	The chance to try my own methods of doing the job
Activity	Being able to keep busy all the time
Independence	The freedom to use my own judgement
Responsibility	The chance to work alone on the job
Security	The way my job provides for steady employment
Authority	The chance to tell people what to do
Social service	The chance to do things for other people
Social status	The chance to be 'somebody' in the community
Variety	The chance to do different things from time to time

RESULTS

Results of Hierarchical Regression Analysis – Intrinsic Rewards and Knowledge Sharing Behaviour

Hierarchical regression analysis was performed to examine the utility of intrinsic rewards in predicting knowledge sharing behaviour of employees. In the first step, intrinsic rewards were entered into the regression equation. Conscientiousness was involved in the second step and the last step involved the interaction effect of intrinsic rewards X conscientiousness. For reducing the problem of multicollinearity, by reducing the size of any high correlation of the independent variable or the moderator variable with the interaction variable, procedure outlined by Aiken and West (1991)

was used. The procedure required that all continuous variable should be converted into standard scores and then standardized variables are multiplied together to create the interaction variable. Results of analysis are presented in Table 2.

Table 2: Hierarchical Regression Analysis: Predicting Knowledge Sharing Behaviour for Total Sample (N=116)

	Step 1	Step 2	Step 3
Intrinsic rewards	.766**	.349**	.250*
Conscientiousness		.471**	.500**
Intrinsic rewards * Conscientiousness			.155**
Constant	19.38	19.38	18.46
R	.766	.797	.808
R^2	.587	.635	.653
R^2 Change	.587	.048	.018
F Change	161.822**	14.892**	5.945**
F	161.822**	98.217**	70.325**

Note: B= Standardized regression coefficient. **p<.01,* p<.05

From the results of the table 2, the main effect of intrinsic rewards was found to be significant (B =.766, t=12.72, p<.01). Hence, hypothesis 1 is accepted. Adding conscientiousness at step 2 added to the variance accounted for (F change=14.892, p<.01). The prediction of knowledge sharing behaviour was also significantly enhanced with addition of the interaction term intrinsic rewards X conscientiousness (R^2=.653, F-change=5.945, p<.01). As seen from the Table 2, the intrinsic rewards X conscientiousness interaction made a contribution to the prediction of knowledge sharing behaviour (B=.155, t-value =2.438, p<.01). The significant interaction supports the moderating role of conscientiousness in the relationship between intrinsic rewards and knowledge sharing behaviour. Fig. 1 represents the interaction effect. Knowledge sharing behaviour was high among high conscientiousness group of employees. Thus, hypothesis H2 is accepted.

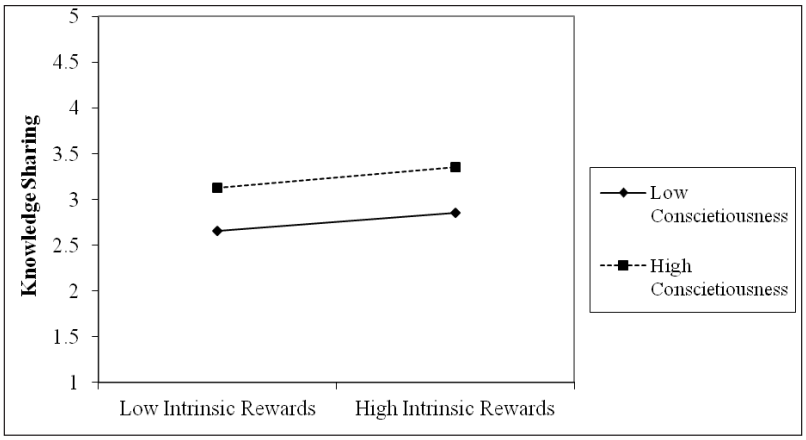
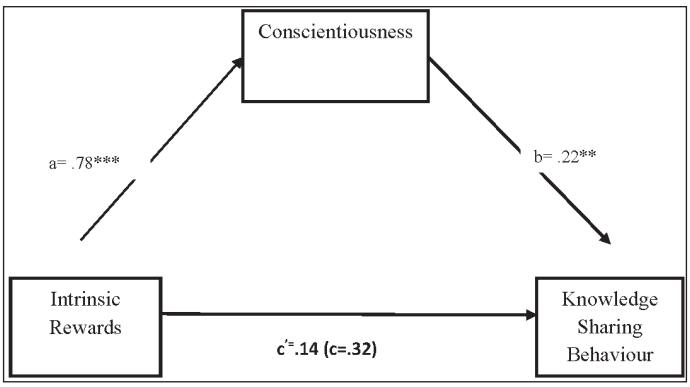


Fig. 1: Interaction Effect Between Intrinsic Rewards and Conscientiousness Upon Knowledge Sharing Behaviour

Mediating Effects: Intrinsic Rewards and Knowledge Sharing Behaviour

To investigate hypothesis 3 bootstrapping approach given by Preacher and Hayes (2004) with 5000 samples (recommended) was used. Indirect Pathway c' (the effect of X on Y, when MV is controlled) was calculated using PROCESS macro by Hayes (2013). Fig. 2 shows the proposed mediation model.



Note: *p<.05, **p<.01, ***p<.001

Fig. 2: Indirect Effect of Intrinsic Rewards on Knowledge Sharing Behaviour through Conscientiousness

First, it was found that intrinsic rewards were positively associated with conscientiousness of employees (B= .78, t (114) = 20.30, *p*=.000). It was also found that intrinsic rewards also related positively to knowledge sharing behaviour (B= .14, t (114) = 2.85, *p*=.005). Lastly results indicated that mediator, conscientiousness, was positively associated with knowledge sharing behaviour (B=.22, t (114) = 3.85, *p*= .000). Because, both the a-path and b-path were significant, mediation analysis was tested using bootstrapping method with bias-corrected confidence estimates. 95% confidence interval of the indirect effect was obtained with 5000 bootstrap re-samples. From the analysis of the results of the mediation analysis, the mediating role of conscientiousness in the relation between intrinsic rewards and knowledge sharing behaviour (B= .17, CI= .0847 to .2691) was confirmed. The results of the study also indicated that the previously significant relationship between predictor (intrinsic rewards) and the outcome (knowledge sharing behaviour) remained significant (B= .14, CI= .0458 to .2536). Therefore, Sobel test was conducted which suggested partial mediation in the model (z =-3.78 *p* =.000). Figure 2 display the results. Hence, hypothesis H3 is accepted.

CONCLUSION

The main objective of the present study was to examine the mediating and moderating effect of conscientiousness on the relationship between intrinsic rewards and knowledge sharing behaviour. The main hypotheses of the study H2 and H3 were supported. The relationship between intrinsic rewards and knowledge sharing was moderated by conscientiousness. In other words, from the results of the step-wise multiple regression, it was seen that high conscientious employees had higher knowledge sharing behaviour as compared to low conscientious employees. The role of conscientiousness as a mediating variable in the relationship between intrinsic rewards and knowledge sharing behaviour was also confirmed.

Several studies support the present study results. Sajeva (2014) suggested that intrinsic rewards like belonging and sharing common values; achievement and success; competence; usefulness; respect and recognition; and trust are important intrinsic factors for knowledge sharing (Sajeva, 2014). Assegaff, Kurniabudi & Fernando (2016) also reported intrinsic motivation as a significant factor affecting peoples' intention in knowledge sharing. Cabrera, Collins & Salgado (2006) opined that individual characteristics such as personality traits explain why some

people are motivated more to share knowledge than others. Of the five personality traits, conscientiousness has been found to be strong predictor of knowledge sharing. Conscientiousness also determines learning orientation, which in turn influence knowledge sharing (Matzler & Muller, 2011). Individuals high on conscientiousness have a tendency to focus on accomplishing goals in a strong-minded and well-organized manner (McCrae & John, 1992). Individuals scoring high on conscientiousness are more drawn towards knowledge sharing actions (Gupta, 2009). Gupta (2008) in her study reported significant differences in knowledge sharing behaviour of employees with low, medium and high conscientiousness.

IMPLICATIONS

The study supports the importance of reward system and personality in knowledge sharing among academicians. Today, private universities have become battlegrounds where academicians are fighting for positions, incentives, research projects, consultancy etc. These academicians will be cautious to share knowledge as sharing knowledge may jeopardize their position and career in the organization. Therefore, higher education institutions should emphasize on intrinsic rewards so as to strengthen motivation towards knowledge sharing. Mechanisms such as freedom to use judgement, variety in work, authority, ability utilization etc. should be increased in order to promote more knowledge sharing behaviour among employees. In addition, HEI can use conscientious dimension of individual's personality as an important factor for screening and hiring new employees. High conscientious employees through knowledge sharing can contribute more in areas where knowledge sharing is vital. Effective knowledge management can increase the quality of education and research. It can also help in retaining the talent. Policy makers and management should therefore emphasize knowledge sharing in HEI. They should leverage knowledge to achieve operational excellence and improve customer service.

LIMITATIONS

The research contributes to the existing literature on knowledge management. It contributes to discussions on the role of rewards on knowledge sharing behavior of employees and the role of conscientiousness. The data for the present research however was limited to only private higher education institutions. Furthermore, it was only limited to universities

in Himachal Pradesh. Therefore, the results of the present study cannot be generalized to states with different cultures. Also, the study did not consider many other factors which may influence knowledge sharing such as demographics, organizational culture, and other traits of personality like extraversion, emotional stability, agreeableness, and openness to experience.

FUTURE RESEARCH

Future studies should consider examining knowledge sharing among academicians in public universities. A comparative study among private and public universities can also be undertaken. Furthermore, researchers in this area should examine the challenges to knowledge sharing and other determinants that promote knowledge sharing.

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