

Innovative Teaching Practices in Educational Institutions (ITPEI)

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ABSTRACT Innovative teaching methodologies attract the attention of students, kindle the interest for the subject and make them understand the concepts with ease. The objective of the paper is to measure the level of innovative behavior and to examine the relationship between demographic variables and innovative behavior among the faculty of teaching in educational institutions. In this paper, descriptive research design is employed. A pretested questionnaire is administered to measure the level of innovative behavior for a sample of 100 respondents, selected using random sampling method. The level of innovative behavior is compared with the demographic variables of the respondents using analysis of variance method. The results indicate that there is a significant difference between the demographic variables and the level of innovative behavior. By measuring and improving the level of innovative behavior the educational institutions can enhance the performance of the students and achieve competitive advantage.

INTRODUCTION

The quality of educational institutions can be determined by the teaching ability of the faculty members working in it. But the challenges faced by the faculty are increasing due to change in the perspectives of students, lack of proper resources and poor support from the management. Innovativeness in work is one of the way to overcome the challenges faced by the faculty working in educational institutions.

Innovative behavior is the process in which new ideas are generated, created, developed, applied, promoted, realized, and modified by employees in order to benefit role performance (Konermann 2012). Innovative work behavior is the application of new methodologies of teaching so as to find new solutions to the existing problems.

Thurlings et al. (2015) have mentioned that in order to survive in a highly competitive market educational institutions and faculty have to behave in an innovative manner. Innovative behavior is an essential requirement for educational institutions in order to keep up with the rapidly changing society, new technologies and new insights. Rahman et al. (2017) have said that lecturers require innovative behavior for fulfilling

their roles in research activities and to advance their way of thinking particularly in the new environment in which innovation is much required. Previous studies about innovative behavior show that innovation is related to work role performance, transformational leadership, psychological capital, work commitment, employee well-being, self-efficacy and organizational culture. The success of an educational institution depends upon the eminent faculty members who can handle the issues related to education and discipline. Hence by measuring and developing the level of innovative behavior among the faculty, the educational institutions can achieve competitive advantage in a global environment.

Literature Review

According to Janssen (2000), innovative behavior is the intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization. Innovative work behavior results in positive outcome for an organization. Organizations that function in the contemporary competitive world expect their employees to come up with

innovative ideas to gain competitive advantage over their competitors.

Innovative behavior is measured by different scales with different dimensions. Most of the researchers have used four dimensions of innovative work behavior: opportunity exploration or problem recognition, idea generation, idea championing and application. De Jong and Den Hartog (2008) have measured validated innovative behavior using these four dimensions.

A research work conducted by De Clercq et al. (2014) shows that the perceptions of employees about adverse work conditions and organizational politics affect innovative behavior. But this effect gets decreased when the employees get relevant resources through knowledge sharing and if they have a harmonious interpersonal relationship in the organization. Previous researchers imply that innovative behavior is not only dependent on an individual's ability but it also depend on the internal environment of an organization.

A model created by Thurlings et al. (2015) revealed that teacher's innovative behavior is influenced by organizational factors, demographic factors and individual factors. Organizational factors include infrastructure facilities, resources available, existing culture, task factors and physical characteristics of organization. Demographic factors that have significant impact are income, years of education and teaching experience of the faculty members. Likewise, individual factors such as personality, trait and competence can influence innovative behavior.

Bos-Nehles et al. (2017) explored the role of supervisors in supporting innovative work behaviour among public sector employees by also considering the unique challenges faced by them. This paper further revealed that the failure in implementing innovative projects can be resolved by situational leadership that emphasizes networking activities. Even if the employees in an organization are ready to work innovatively, it is not achievable unless they are supported by their management, supervisors and co-workers.

Cerne et al. (2017) investigated the multilevel interaction among team level, job related, and individual characteristics in stimulating employees' innovative work behavior. The paper is based on achievement goal theory and job characteristics theory. The findings of the paper reveal that the employee's hidden knowledge and high levels of innovative work behavior can be

facilitated by team mastery climate, high task interdependence or high decision autonomy. Organizations can create a suitable environment so as to improve the level of innovative behavior among the employees.

A research work on influence of innovation among technology startups was carried out by Nassar and Sori (2017). The paper also assessed how innovation influences financing for technology startups. The results indicated that the factors that are barriers to innovation are collective culture, herd mentality behavior and fear of failure.

Objectives

The objectives of the paper are to measure the level of innovative behavior of the teaching faculty and to examine the difference between demographic variables and innovative behavior.

METHODOLOGY

A sample of 100 teaching faculty working in educational institutions are chosen by using random sampling method. The primary data is collected through pre-tested and structured questionnaire. The study is with respect to Indian scenario.

To measure the level of innovative work behaviour average score analysis is done. To examine the difference between demographic variables and level of innovative behavior, the ANOVA (analysis of variance) test is applied. SPSS is used for the purpose of data analysis.

RESULTS

The results of the study include two parts. The overall level of innovative behavior with respect to demographic variables and analysis of variance between demographic variables and innovative behavior.

Overall Innovative Behavior with Respect to Demographic Variables

The average score analysis of overall innovative behavior with respect to demographic factors namely gender, age, educational qualification, designation and experience is analyzed in this section. The level of innovative behavior

with respect to demographic variables are analyzed and displayed in Table 1.

Gender versus Overall Level of Innovative Behavior

It is found from Table 1 that the percentage of high level of innovative behavior of respondents is highest among the male respondents with 20.5 percent and the same is lowest with 15.5 percent among the female respondents. The percentage of medium level of innovative behavior of respondents is highest among the male respondents with twenty-two percent and the lowest is among female respondents with nine percent. The percentage of low level of innovative behavior of respondents is same with 16.5 percent for both male and female respondents.

Age versus Overall Level of Innovative Behavior

It is found from Table 1 that the percentage of high level of innovative behavior of respondents is highest among the age group of 25-30 years with twelve percent and the lowest is among the age group of 46-50 years with 2.5 percent. It is found from the table that the percentage of medium level of innovative behavior of respondents is highest among the age group of 25-30 years with 9.5 percent and the lowest is

among the age group of respondents greater than 50 years with 0.5 percent. It is found from the table that the percentage of low level of innovative behavior of respondents is highest among the age group of 25-30 years with fifteen percent and the lowest is among the age group of greater than 50 years with zero percent.

Educational Qualification versus Overall Level of Innovative Behavior

It is found from Table 1 that the percentage of high level of innovative behavior of respondents is highest among the postgraduates with twenty-four percent and the lowest is among the doctorates with twelve percent. It is found from the table that the percentage of medium level of innovative behavior of respondents is highest among the post graduates with 16.5 percent and the lowest is among the doctorates with 14.5 percent. It is found from the table that the percentage of low level of innovative behavior of respondents is highest among the doctorates with 17.5 percent and the lowest is among the post graduates with 15.5 percent.

Experience versus Overall Level of Innovative Behavior

It is found from Table 1 that the percentage of high level of innovative behavior of respon-

Table 1: Average score analysis with respect to overall level of innovative behavior

Demographic variables			Innovative behavior			
			Low (%)	Medium (%)	High (%)	Total (%)
Gender	Male	% of Total	16.5	22.0	20.5	59.0
	Female	% of Total	16.5	9.0	15.5	41.0
Age	25-30	% of Total	15.0	9.5	12.0	36.5
	31-35	% of Total	4.5	8.5	6.5	19.5
	36-40	% of Total	5.0	4.5	7.0	16.5
	41-45	% of Total	6.0	4.0	3.0	13.0
	46-50	% of Total	2.5	4.0	2.5	9.0
	>50	% of Total	0.0	.5	5.0	5.5
	PG	% of Total	15.5	16.5	24.0	56.0
Educational Qualification	PhD	% of Total	17.5	14.5	12.0	44.0
Experience (in years)	<2	% of Total	12.0	8.5	3.0	23.5
	2-5	% of Total	10.0	9.0	13.5	32.5
	6-10	% of Total	7.0	6.0	8.5	21.5
	11-15	% of Total	3.5	1.5	6.5	11.5
	16-20	% of Total	.5	4.0	3.5	8.0
	>20	% of Total	0.0	2.0	1.0	3.0
	Assistant Professor	% of Total	26.5	25.0	26.5	78.0
Designation	Associate Professor	% of Total	4.0	5.0	5.0	14.0
	Professor	% of Total	2.5	1.0	4.5	8.0

dents is highest among the respondents with experience of 2-5 years with 13.5 percent and the lowest is among the respondents with experience greater than 20 years with one percent. It is found from the table that the percentage of medium level of innovative behavior of respondents is highest among the respondents with experience 2-5 years with nine percent and the lowest is among the respondents with experience 11-15 years with 1.5 percent. It is found from the table that the percentage of low level of innovative behavior of respondents is highest among the respondents with experience less than 2 years with twelve percent and the lowest is among the respondents with experience greater than 50 years with zero percent.

Designation versus Overall Level of Innovative Behavior

It is found from Table 1 that the percentage of high level of innovative behavior of respondents is highest among the assistant professors with 26.5 percent and the lowest is among the professors with 4.5 percent. It is found from the table that the percentage of medium level of innovative behavior of respondents is highest among the assistant professors with twenty-five percent and the lowest is among the professors with one percent. It is found from the table that the percentage of low level of innovative behavior of respondents is highest among the assistant professors with 26.5 percent and the lowest is among the professors with 2.5 percent.

Analysis of Variance between Demographic variables and Innovative Behavior

The analysis of variance test is applied to find the difference between the demographic variables such as gender, age, educational qualification, designation and experience with innovative work behavior.

The data is analyzed and the results are displayed in Table 2.

Table 2: Difference between demographic variables and innovative behavior

<i>Demographic variables</i>	<i>Mean square</i>	<i>F</i>	<i>Sig.</i>
Gender	.357	1.815	.002
Age	3.529	1.760	.004
Educational Qualification	.389	2.055	.000
Designation	.617	2.276	.000
Experience (in years)	2.729	1.936	.001

The results from Table 2 show that the F-values are significant, indicating that there is significant difference between the demographic variables and innovative work behavior of the teaching faculty of educational institutions. Hence, the null hypothesis that there is no significant difference between demographic variables and innovative behavior is rejected.

DISCUSSION

The results indicate that there is significant difference between gender and innovative behavior. The research done by Millward and Freeman (2002) suggest that innovation is related with the different levels of risk taken. Men are expected to take more risks when compared to women. Failure is less damaging to men and more damaging to women. So there is a difference in their behavior with respect to innovation. Luksyte et al. (2017) revealed that innovative work behaviors are stereotypically associated with men more than women. The innovative behavior exhibited by men is easily recognised and they are rewarded for it. This affects the performance appraisal payoffs of women for not being innovative. The results show that there is a significant difference between age and experience in relation with innovative behavior. Ng and Feldman (2013) conducted a research to find whether older employees are less innovative when compared to younger employees. The paper reveals that the capacity to behave innovatively grows with age and experience.

The results reveal that there is significant difference between educational qualification and innovative behavior. A research conducted by Villalba and Ernesto (2008) has shown relationships between innovation and education at a general level, mainly exploring how education might contribute to innovation. A research conducted by Ahmed et al. (2017) has explored the relationship between innovation and designation. The results of the paper have shown that there is a substantial difference between the level of innovation of lectures when compared with assistant professors and professors. The difference arises because the number of papers published, number of conferences and workshops attended differs between them. Lectures are new to the teaching field whereas professors have massive years of experience in handling the subject, students, knowledge and skills.

CONCLUSION

Educational skill is made state of the art to suit to the industry demands. The participants of the educational institutions are universities, institutions/colleges, students, parents, teachers, government policy frameworks and employable industries. In majority of the cases the competence gained by the students is due to the contribution and commitment of the teaching faculty who are working in the respective educational institutions. The performance of the teaching faculty is related to the performance of students which in turn improves the overall efficiency of the educational institution. The research about innovative behavior can create an awareness that can help educational institutions to focus on the innovative behavior, encourage the faculty to implement innovative teaching practices and expand their knowledge horizons.

RECOMMENDATIONS

The educational institution can inculcate innovative behaviour through any of the following ways. It can be done by recruiting the suitable faculty who might use innovative teaching methods during their classes, by choosing interventions that facilitate innovative behavior among the teaching faculty, by motivating, supporting, and accepting their ideas by weighing pros and cons during the idea generation process, by providing the resources needed during the implementation process and by recognizing and rewarding after successful completion of the innovative process.

REFERENCES

- Ahmed S, Ahmed A, Ahmad M 2017. Application of multiple comparison procedures on an individual's innovative behavior. *Pak J Statist*, 33(3): 191-206.
- Bos-Nehles A, Bondarouk T, Nijenhuis K 2017. Innovative work behaviour in knowledge-intensive public sector organizations: The case of supervisors in the Netherlands fire services. *The International Journal of Human Resource Management*, 28(2): 379-398.
- Cerne M, Hernaes T, Dysvik A, Skerlavaj M 2017. The role of multilevel synergistic interplay among team mastery climate, knowledge hiding, and job characteristics in stimulating innovative work behavior. *Human Resource Management Journal*, 27(2): 281-299.
- De Clercq D, Dimov D, Belausteguigoitia I 2016. Perceptions of adverse work conditions and innovative behavior: The buffering roles of relational resources. *Entrepreneurship Theory and Practice*, 40(3): 515-542.
- De Jong JP, Den Hartog DN 2008. Innovative work behavior: Measurement and validation. *EIM Business and Policy Research*, 1-27.
- Janssen O 2000. Job demands, perceptions of effort reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73(3): 287-302.
- Konermann J 2012. *Teachers' Work Engagement: A Deeper Understanding of the Role of Job and Personal Resources in Relationship to Work Engagement, its Antecedents, and its Outcomes*. Netherlands: Universiteit Twente.
- Luksyte A, Unsworth, KL, Avery DR 2017. Innovative work behavior and sex based stereotypes: Examining sex differences in perceptions and evaluations of innovative work behavior. *Journal of Organizational Behavior*, 38(10): 1415-1429.
- Millward LJ, Freeman H 2002. Role expectations as constraints to innovation: The case of female managers. *Communication Research Journal*, 14(1): 93-109.
- Nassar J, Sori ZM 2017. Can Culture Stimulate Innovation for Technopreneurship. *Proceedings of the 5th International Conference on Innovation and Entrepreneurship ICIE 2017*, 26-27 April, Kuala Lumpur, Malaysia. UK: Academic Conferences and Publishing International Ltd, P. 94.
- Ng TW, Feldman DC 2013. A meta analysis of the relationships of age and tenure with innovation related behaviour. *Journal of Occupational and Organizational Psychology*, 86(4): 585-616.
- Rahman A, Ayue A, Panatik SA, Alias RA 2017. The Mediating Role of Web 2.0 Usage in the Effect of Psychological Empowerment on Innovative Work Behavior among Academia in Malaysian Research Universities. *Proceedings of the 21st Pacific-Asia Conference on Information Systems (PACIS 2017)*, 16-20 July, Langkawi Island, Malaysia.
- Thurlings M, Evers AT, Vermeulen M 2015. Toward a model of explaining teachers' innovative behavior: A literature review. *Review of Educational Research*, 85(3): 430-471.
- Villalba Ernesto 2008. Investigating the discourse on social cohesion in relation to innovation through the vocabulary of European Commission Communications. *European Educational Research Journal* 7(3): 358-370.

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