KNOWLEDGE CREATION AND TRANSFER AMONG POSTGRADUATE STUDENTS AT RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY: AN EMPIRICAL STUDY

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Abstract :

Knowledge creation and knowledge transfer are important parts of higher education. Postgraduate students learn, create new ideas, share information, and transfer knowledge through their academic activities. This study examines knowledge creation and knowledge transfer among postgraduate students at Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) Nagpur.

A quantitative research approach and a descriptive survey design was adopted for the study. Data were collected from 120 postgraduate students using a structured questionnaire. The data were analyzed using frequency, percentage, mean, standard deviation, Cronbach's alpha, Pearson's correlation.

The study concludes that knowledge creation and knowledge transfer are closely related among postgraduate students. The findings highlight the need for universities to strengthen peer learning, research activities, library services, digital resources, and ICT-enabled academic environments to facilitate effective knowledge creation and transfer.

Keywords : Knowledge Creation, Knowledge Transfer, Knowledge Sharing, Postgraduate Students, ICT, RTMNU.

Introduction :

Knowledge is an important part of higher education. Universities provide students with opportunities to learn, develop new ideas, conduct research, and share knowledge with others. Postgraduate students have an important role in the academic environment. They learn through classroom teaching, reading, research, seminars, discussions, group activities, libraries, and digital resources. These activities help students create and share knowledge.

Knowledge creation means developing new understanding or ideas from information and experience. Knowledge transfer means sharing knowledge with other people. In a

university, students can transfer knowledge through discussions, presentations, group work, seminars, research activities, and digital communication.

The use of information and communication technology (ICT) has also changed the way students learn and share knowledge. Students can use electronic journals, e-books, online databases, websites, and other digital resources for academic purposes.

Nonaka (1994) explained that knowledge creation takes place through interaction between tacit and explicit knowledge. Knowledge creation is therefore a continuous process. Nonaka's 1994 article

Knowledge sharing is also important because knowledge becomes more useful when it is communicated and used by others. Ipe (2003) discussed knowledge sharing as an important process within organizations. Ipe's knowledge-sharing article

The present study therefore examines knowledge creation and knowledge transfer among postgraduate students at Rashtrasant Tukadoji Maharaj Nagpur University.

Review of Literature :

Nonaka (1994) developed a theory of organizational knowledge creation. According to the theory, knowledge develops through interaction between tacit and explicit knowledge. This theory provides a useful basis for studying how students create knowledge through learning and interaction. Organization Science – Nonaka (1994)

Nonaka and Takeuchi (1995) explained how organizations create and use knowledge to support innovation. Their work shows that knowledge creation is not only an individual activity but can also develop through interaction with others.

Ipe (2003) explained that knowledge sharing is an important process through which people exchange knowledge. Knowledge sharing can be affected by the type of knowledge, the person sharing it, the person receiving it, and the organizational environment. Human Resource Development Review – Ipe (2003)

Kogut and Zander (1992) explained the importance of combining existing knowledge to develop new knowledge and capabilities. Their work supports the importance of knowledge combination in academic learning. Organization Science – Kogut and Zander (1992)

Argote (2013) discussed how organizations create, retain, and transfer knowledge. Her work shows that knowledge transfer is an important part of learning and development. Organizational Learning – Argote

The above studies show that knowledge creation, knowledge sharing, knowledge combination, and knowledge transfer are connected processes. However, there is a need for more studies focusing specifically on postgraduate students in the university environment.

The present study attempts to address this need

Research Gap :

Many studies have examined knowledge management, knowledge creation, and knowledge sharing in organizations. However, fewer studies have examined these processes together among postgraduate students.

Postgraduate students are both users and creators of knowledge. They obtain information from teachers, books, journals, libraries, databases, websites, and other students. They also create and share knowledge through research, assignments, discussions, presentations, and seminars.

Therefore, the present study examines knowledge creation and transfer among postgraduate students at RTMNU.

Objectives of the Study :

The objectives of the study are:

1. To study knowledge creation among postgraduate students.
2. To study knowledge expression among postgraduate students.
3. To examine knowledge sharing and knowledge transfer among postgraduate students.
4. To study knowledge combination among postgraduate students.
5. To examine university support for knowledge-related activities.
6. To study the use of ICT and online academic resources.
7. To examine the relationship between knowledge creation and knowledge transfer.
8. To examine the relationship between ICT use and knowledge-related activities.
9. To provide suggestions for improving knowledge creation and knowledge transfer.

Research Questions :

1. What is the level of knowledge creation among postgraduate students?
2. What is the level of knowledge transfer among postgraduate students?
3. Is there a relationship between knowledge creation and knowledge transfer?
4. Is ICT use related to knowledge creation?
5. Is ICT use related to knowledge transfer?
6. What steps can improve knowledge creation and knowledge transfer among postgraduate students?

Hypotheses :

- **H01 :** There is no significant relationship between knowledge creation and knowledge transfer among postgraduate students.
- **H02 :** There is no significant relationship between ICT/online academic use and

knowledge creation among postgraduate students.

- **H03 :** There is no significant relationship between ICT/online academic use and knowledge transfer among postgraduate students.

Research Methodology :

The study adopted a quantitative research approach with a descriptive and correlational survey design was adopted for the study. The population of the study consisted of postgraduate students at Rashtrasant Tukadoji Maharaj Nagpur University. A total of 121 questionnaire responses were received of which 120 eligible and complete responses were included in the final analysis. Data were collected through a structured questionnaire. The questionnaire included questions about students' academic background and statements related to knowledge creation, knowledge expression, knowledge sharing/transfer, knowledge combination, university support, and ICT use.

The main statements were measured on a five-point Likert scale:

1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

The collected data were analyzed using descriptive statistics such as Frequency, Percentage, Mean, Standard deviation, Pearson correlation, Group comparison tests where appropriate. The significance level was set at 0.05.

Profile of Respondents :

Table 1:-Demographic and Academic Profile of Respondents (N = 120)

Variable	Category	Frequency	Percentage
Gender	Female	80	66.7
	Male	40	33.3
Faculty	Arts & Humanities	64	53.3
	Science & Technology	37	30.8
	Interdisciplinary Studies	15	12.5
	Commerce & Management	4	3.3
Research project	Yes	97	80.8
	No	23	19.2
Mode of study	Regular	119	99.2
	Distance/Online	1	0.8

Variable	Category	Frequency	Percentage
Academic collaboration	Rarely	19	15.8
	Sometimes	63	52.5
	Often	30	25.0
	Very Often	8	6.7

Interpretation :

The results show that 80 female students (66.7%) and 40 male students (33.3%) participated in the study. Most respondents were from Arts and Humanities (53.3%), followed by Science and Technology (30.8%). A large majority of students (80.8%) had participated in a research project. Almost all respondents (99.2%) were regular students. Regarding academic collaboration, 52.5% said that they sometimes worked with other students, while 31.7% reported that they often or very often collaborated with their peers.

Reliability and Descriptive Statistics :

Table 2:- Reliability Analysis and Descriptive Statistics

Construct	Items	Mean	SD	Cronbach's α
Knowledge Creation	10	4.07	0.54	.955
Knowledge Expression	10	3.98	0.60	.871
Knowledge Sharing/Transfer	10	4.03	0.68	.903
Knowledge Combination	10	4.02	0.58	.861
University Knowledge Support	8	3.93	0.72	.883
ICT/Online Academic Use	8	4.01	0.62	.772

Interpretation :

- The results show that all the major constructs had good reliability. Cronbach's alpha values ranged from **.772 to .955**.
- The highest mean score was found for knowledge creation (M = 4.07, SD = 0.54). Knowledge sharing/transfer also had a high mean score (M = 4.03, SD = 0.68).
- The mean score for university knowledge support was 3.93. This was the lowest score among the major constructs, although it was still above the midpoint of the five-point scale.

Correlation Analysis :

Table 3:- Relationship among Major Study Variables

Variables	Knowledge Creation	Knowledge Transfer	Knowledge Combination	ICT Use
Knowledge Creation	1	.730***	.646***	.436***
Knowledge Transfer	.730***	1	.682***	.550***
Knowledge Combination	.646***	.682***	1	.562***
ICT Use	.436*	.550**	.562**	1

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

Interpretation :

- The results show a strong positive relationship between knowledge creation and knowledge transfer (**r = .730, p < .001**).
- This means that students who reported higher knowledge-creation practices also tended to report higher knowledge-transfer practices.
- Knowledge creation was also positively related to knowledge combination (**r = .646, p < .001**).
- Knowledge transfer was positively related to knowledge combination (**r = .682, p < .001**).
- ICT use was positively related to knowledge creation (**r = .436, p < .001**) and knowledge transfer (**r = .550, p < .001**).
- All these relationships were statistically significant

Hypothesis Testing :

Table 4:- Results of Hypothesis Testing

Hypothesis	Result	p-value	Decision
1: Knowledge creation and knowledge transfer are not related	r = .730	< .001	Rejected
2: Knowledge creation and knowledge combination are not related	r = .646	< .001	Rejected
3: Knowledge transfer and knowledge combination are not related	r = .682	< .001	Rejected
4: ICT use and knowledge creation are not related	r = .436	< .001	Rejected
05: ICT use and knowledge transfer are not related	r = .550	< .001	Rejected

Interpretation :

All five null hypotheses were rejected. The strongest relationship was between knowledge creation and knowledge transfer (r = .730). This result shows that knowledge creation and knowledge transfer are closely connected among the postgraduate students included in the study.

Discussion :

The study found that postgraduate students reported a high level of knowledge creation. The mean score for knowledge creation was 4.07. This indicates that students generally agreed that they engage in activities that help them develop new knowledge and ideas.

This finding supports Nonaka's (1994) view that knowledge develops through interaction and the conversion of different forms of knowledge. Nonaka's research

Knowledge sharing/transfer also received a high mean score of 4.03. This indicates that students regularly exchange academic information and knowledge with others.

The strongest finding was the relationship between knowledge creation and knowledge transfer (r = .730). Students who create knowledge are also more likely to share and transfer it. This supports the importance of knowledge sharing discussed by Ipe (2003). Ipe's research

Knowledge creation was also significantly related to knowledge combination. This suggests that students who combine information from different sources are more likely to develop new understanding. This finding is consistent with the importance of knowledge combination discussed by Kogut and Zander (1992). Kogut and Zander's research

ICT use was positively related to both knowledge creation and knowledge transfer. This suggests that digital resources can provide useful opportunities for students to find information, communicate with others, and share academic knowledge.

However, the study shows relationships, not cause-and-effect relationships. Therefore, the results should not be interpreted as proving that ICT use directly causes better knowledge creation or transfer.

Major Findings :

The major findings of the study are as follows:

1. The level of knowledge creation among postgraduate students was high.
2. Knowledge creation had a mean score of 4.07.
3. Knowledge sharing/transfer had a mean score of 4.03.
4. Knowledge combination had a mean score of 4.02.
5. ICT/online academic use had a mean score of 4.01.

6. University knowledge support had a mean score of 3.93.
7. All major scales showed satisfactory reliability.
8. Knowledge creation and knowledge transfer had a strong positive relationship.
9. Knowledge creation and knowledge combination had a significant positive relationship.
10. Knowledge transfer and knowledge combination had a significant positive relationship.
11. ICT use was positively related to knowledge creation.
12. ICT use was positively related to knowledge transfer.
13. A large majority of respondents had participated in research projects.
14. Almost all respondents were regular students.

Recommendations :

Based on the findings, the following recommendations are suggested.

- The university should encourage students to participate in group discussions, peer-learning groups, study circles, and student seminars.
- Students should have easy access to e-books, e-journals, online databases, digital libraries, and other academic resources.
- The university should organize training programmes on digital academic resources, online databases, information searching, information evaluation, and research tools.
- Teachers should provide more opportunities for students to discuss research ideas, ask questions, and receive academic guidance.
- The university library should provide strong support for students' research and learning needs through digital resources, information-literacy programmes, and research-support services.
- Students should be encouraged to participate in research projects, seminars, conferences, workshops, and academic presentations.
- Interdisciplinary seminars and projects can help students combine knowledge from different subjects and develop new ideas.
- The university may develop a suitable digital platform where approved student research work, presentations, projects, and other academic resources can be stored and shared.

Conclusion :

The study examined knowledge creation and knowledge transfer among 120 postgraduate students at Rashtrasant Tukadoji Maharaj Nagpur University. The results show that postgraduate students have a high level of knowledge creation, knowledge sharing, knowledge combination, and ICT use. The strongest relationship was found between knowledge creation and knowledge transfer. The study shows that students who actively create knowledge are also more likely to share knowledge with others. ICT use is also

positively related to knowledge creation and knowledge Transfer. The University can further improve these activities by providing better digital resources, library services, research opportunities, peer-learning activities, and faculty support.

In conclusion, knowledge creation and knowledge transfer are important parts of postgraduate education. A supportive academic environment can help students develop, share, and use knowledge more effectively.

Limitations :

The study has some limitations.

1. The study was based on 120 postgraduate students.
2. The data were collected using a questionnaire and therefore depended on students' responses.
3. The study was conducted at one university.
4. The study used a cross-sectional design.
5. Correlation results show relationships but do not prove causation.
6. The study examined selected aspects of knowledge creation and transfer.

Future studies can include postgraduate students from different universities and compare knowledge practices across disciplines, faculties, and institutions

References :

- Argote, L. (2013). *Organizational learning: Creating, retaining and transferring knowledge* (2nd ed.). Springer. https://doi.org/10.1007/978-1-4614-5251-5
- Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Harvard Business School Press.
- Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *Human Resource Development Review, 2*(4), 337–359. https://doi.org/10.1177/1534484303257985
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science, 3*(3), 383–397. https://doi.org/10.1287/orsc.3.3.383
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science, 5*(1), 14–37. https://doi.org/10.1287/orsc.5.1.14
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford University Press.
- Nonaka, I., & von Krogh, G. (2009). Tacit knowledge and knowledge conversion: Controversy and advancement in organizational knowledge creation theory. *Organization Science, 20*(3), 635–652. https://doi.org/10.1287/orsc.1080.0412