

Relationship between Diversity and Knowledge Exploration

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Abstract:

The purpose of this paper was to analyze the relationship between diversity & knowledge exploration in order to evaluate the data. Primary data collection technique that used here was questionnaire. It was disbursed to 100 subjects. The result of the study showed that diversity & knowledge exploration are positively related with each other. As diversity in any field is increased, knowledge exploration activities get affected positively. So, on the basis of these two distinct variables, this paper presents two interrelated studies that intend to provide us the best possible understanding of how diversity can be used to explore knowledge in any field. The strength of this relationship depends upon that what role diversity plays to explore and manage new knowledge.

Key words: Diversity, Knowledge Exploration

Introduction:

The theory of diversity shows respect and recognition. Diversity clears that each individual is sole, distinct and one of his/her kind and identifies our individual differences. Nowadays the basic point to concentrate on is to understand diversity as a

collection of the dissimilarities between individual or simply among its elements that may belong the aspects of age, race, gender, culture, views and ideas (Nehring and Puppe 1999). It is seen that with the worldwide changes in the development of goods, ways, people, views and methods we experience and observe diversity (Pinelli 2012). Researchers are finding the answer of the quest that how to get the diversity issues to be solved by exploring knowledge.

Diversity has a strong effect on the most trendy management strategies which are used in companies and business today, which is the creation of workers, work teams. Usually the work teams work in cooperation and ideally drive the company to be best in creativity, vision, flexibility, inspiration and productivity in a business environment.

Diversity is a recognizable source of creativity and innovation that can provide a basis for competitive advantage. On the other hand, diversity is also a cause of misunderstanding, suspicion and conflict in the workplace that can result in absenteeism, poor quality, low morale and loss of competitiveness (Nigel Bassett-Jones 2005). Today more and more externally explored new knowledge is getting focused to diminishing the differences among the individuals and their discussed dimensions of diversity. Therefore, the use and search of knowledge exploration for solving diversity related issues are at the locus of scholarly considerations (Peeters 2013). Several approaches to knowledge explorations have been used for the development in every field such as in any innovation by using technical value (Meyer, John, Subramaniam, and Mohan 2014). Knowledge exploration in technological way is limited with some restrictions across its activities as companies have tendency just before the local and confined search when they assemble their own technological knowledge (Vanhaverbeke, Li, and Van de Vrande 2009). Diversity has a strong effect on the most trendy management strategies which are used in companies and business today that

is the creation of workers, work teams. Usually the work teams work in cooperation and ideally drive the company to be best in creativity, vision, flexibility, inspiration and productivity in a business environment. Diversity is a well-known source and cause of vision, novelty and innovation that can offer a center for competitive improvement. But at the same time, diversity is the reason of confusion, misunderstanding, doubt and conflict in the workplace or among the employees that may present malingering, zero worth, poor quality, low morale and failure of competitiveness (Nigel Bassett-Jones 2005).

The reason of this paper was to simply investigate and study the relationship between diversity and knowledge exploration and it is found that exploring knowledge is dependent on diversity. This study identifies some gaps. First is that our study is different from other studies which are considered in this paper in terms of unit of analysis. Secondly probably the same two variables had not been considered together before. Thirdly, the methodology used in this study, that is the regression method, was totally different from other similar studies. Finally this study on student level has been conducted in the perspective of Pakistan where it has not been conducted before at this level.

The expertise believes that every individual is unique in several dimensions so new things, ideas and views are well thought-out and observed. For providing a good working platform to the individuals, their differences should be well sorted out. But at the same time it should be noted too that is knowledge exploration only a way to examine diversity? What should be the criteria used for the same purpose? Will it be beneficial to make a support group where any individual can discuss his/her concerns about diversity-related issues with other members who have the same problems? How much important it is to conduct research activities within the organizations? The purpose of paper was to answer these questions.

The main theme of this study was to find out the significance of diversity with knowledge exploration. The policy makers and other concerned authorities would get advantage from these efforts on how they can prove themselves better in knowledge and technology than others. It also tells that diversity is that independent factor that provides a path for new knowledge exploration for the scholars. This analysis leads other interested people a chance to study these two variables in a conjunction which has never been done before.

For students especially, this research would open new avenues of research so that these variables can be studied in more depth. This also explains how organization (statewide, in the vicinity and/or regionally) embodies visualization of a diverse workplace. And diversity in the workplace is essential for staff as it manifests itself in constructing on an immense status for the firm with improving to enhanced success, opportunities and productivity for workers. For that reason, by questionnaire-based data, this analysis evaluates the possible effects of different aspects of diversity on knowledge exploration.

Literature Review:

Diversity:

Our world is swiftly changing day by day. The changes are not only accounted with a different view of the world, but also there is a change in language to name that new world. Old words are taking on new meanings and new words are replacing and entering in the vocabulary, ensuing in another way of seeing. So it is the backgrounds, different point of views of people, religion and their life experiences (Rosado 1997). Diversity here is defined in a broad sense as human groupings based on race, ethnicity, gender, class, age, religion, sexual orientation, learning styles, nationality and disability (Notoro Morgan 2001). They define Diversity as a wide range of cultures,

interests and backgrounds (Open-ended responses from student-conducted survey, 28 April 2010). Modupe N. Akinola, David A. Thomas (2007) explains diversity as workforce diversity is continued from a long time to mature in significance and preferences to firms. This enhanced focus has been raised by the globalization of the world economy, the continued diversity in the world population, and high knowledge exploration that can be ensured from useful and strong management of diversity. In order to utilize these benefits, efforts and gains to increase diversity in the corporate sector have been started for more than two decades (Thomas and Ely 1996).

In an effort to explain diversity challenges, it is assumed that superior organizations splurge billions of dollars on diversity exercise and dedicate a lot of possessions to multiple diversity-related initiatives such as hiring services of trained diversity management expertise, establishing corporate-sponsored affinity groups and conducting seminars for attracting and retaining a focused workforce (Corporate Leadership Council 2003; Hansen 2003). The sound effects of learning and ethnic group diversity on work group information are theorized that to some demographic extent, such as race, cause social classification and bound the value of diversity. And as the diversity increases it has a positive impact on exploring knowledge (David and Hinds 2005). Diversity is the starting place of innovativeness, flexibility, and thereby the basis of discovering new knowledge and competitiveness (Laihonen and Koivuaho, 2005).

Knowledge Exploration:

The knowledge exploration is defined as firms that grant the individuals who add some improvement in the workplace by processing, reprocessing and interpreting the existing data and information of firm to create new information that is used to explain problems (Davenport, Jarvenpaa, and Beers 1996). It is

recommended that engineering approaches to knowledge exploration are ill-assorted with the independence and work approaches of various knowledge personnel. Therefore, variety of alternative process-oriented approaches to knowledge work is described (Davenport 2005; Davenport and Iyer 2009). The exploratory learning is defined as an essential thing for developing knowledge from open environments. Throughout the investigation and exploration, individuals are required to have fresh information in accordance with their present status and interests, and also they are required to create new perspectives by introducing new knowledge into their prior knowledge by working together (Liu, Chiang, Chou, and Chen 2010).

Knowledge exploration is the major factor of the economic development and maturation with physical resources and manual labor. And all this can be achieved by searching for the innovations of new products. Development of innovations depend upon the previous conditions and when being studied carefully (Mueller 2006). According to Mark Easterby-Smith & Isabel M. Prieto (2007) the terms knowledge management and exploration are commonly used in discussions on how to discover and manage knowledge within organizations in best possible way when environment is critical. This discussion tends to explain what is the reason behind the successful organizations currently working and producing a competitive and tough environment, and what kind of technologies they are using for researches and innovations. (Eisenhardt and Martin 2000; Teece, Pisano and Shuen 1997). The exploration and sharing of knowledge within groups, staff or partners is somewhat difficult to team execution. But working with the team members who are in different vicinities may present communication challenges but it also provides positive outcomes of knowledge exploration (Staples and Webster 2008). Recent efforts on various firms show that firms are expanding rapidly, dependent on exploring knowledge living outside of their own margins and boundaries for the maximum success

and profitability (Blomberg, Jesper, Werr, and Andreas 2006).

The rapidly increasing present global competition and struggle is characterized by knowledge through firms that involve that diverse, specialized external or internal knowledge explorer improve and develop distinctive knowledge skills, and also shows ways to compose new knowledge that enhances the performance of organization. Mutual learning of diversity and knowledge exploration can be achieved by information technologies that are playing an integrative role between these two variables (Tenkasi and Boland Jr. 1998). Here the movement of small firms in industry about their exploration towards new knowledge for the solution of diversity related issues and their contacts with the local same networks are discussed. Usually the small firms use their technologies and explore in less-crowded area where differences are small. The investigation of the process reveals that these firms are coupled into the local knowledge networks as compared to larger firms. They are restricted to explore knowledge according to the provided atmosphere, the regulations, rules and religion (Almeida and Kogut 1997).

The field of management had an earlier mission on the investigation of diversity among firms exploring and managing knowledge. Now it is advanced and is assorted, it is not like before as the scholars and researchers have shared their point of view. The scholars have been separated into different levels of examining and analysis with having a tendency toward issue and hypothetical assumptions about exploring knowledge and diversity among the people and organization (Levinthal 1995).

The linkage of diversity and knowledge exploration may easily be understood with keen observations on social framework and information about that background of individuals. Depending on the diversity of knowledge streams, the degree of knowledge to be shared and transferred, exploration in new fields of knowledge and reimbursement obtained through such relations, various modes of knowledge

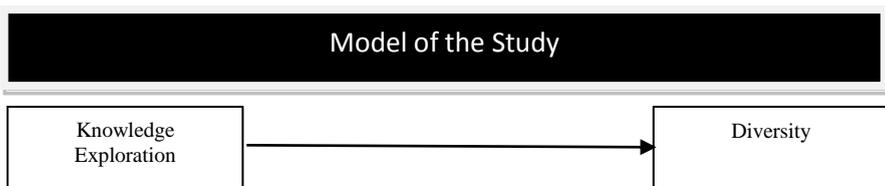
exploration are identified as frontier, combinative, and instrumental (Lang 2004). Technical and technological diversity severely affects innovation with the use of knowledge (Bolli and Worter 2013). Nowadays, with the increasing global competition, the use of well-developed and explored external knowledge is increased for the innovation of new products (Peeters 2013).

H1: Diversity is positively related to knowledge exploration.

Ho: Diversity is not positively related to knowledge exploration.

Methodology:

Using the method of ease and satisfactory sampling, a sample of 100 workers of private sector was chosen for the primary data collection for the paper. These selected workers were middle and line managers. Both self-supervised and mailed questionnaires were used for the analysis purpose. The received proportion of questionnaires was 100 out of 100. So, the response rate was 100%. The questionnaire consisted of 11 items out of which 6 items were for Diversity and 5 items were for Knowledge exploration. The items of Knowledge exploration were adapted only. And the items of Diversity were adopted from a questionnaire. The reliability values of the scale are shown in the correlation metrics ahead. To test the hypothesis, regression and correlation analysis were used.



		Frequency	%age
Gender	Male	73	73
	Female	27	27

Age	18-25	97	97
	26-30	1	1
	31-35	2	2
Education	Bachelors	96	96
	Masters	4	4
	M.Phil.	0	0
	Ph.D.	0	0
Experience	1-4	2	2
	5-9	2	2
	10 & above	0	0

Table 1: Demographics

Results and discussion:

1. Correlation Analysis

The correlation among the two variables namely diversity and knowledge exploration was checked, the results of which are reported in the correlation matrix. The two variables in the study are found to be correlated with each other. Throughout the analysis, Diversity will be denoted by “Div” and Knowledge exploration will be denoted by “K.exp”.

	<i>Div</i>	<i>K.exp</i>
<i>Div</i>	1	0.482**
<i>K.exp</i>	0.482**	1

* Correlation is significant at 0.01 level of significance.

Table 2a: Correlation Matrix (variable to variable)

Table 2a shows a correlation matrix. As shown in the table, the correlation values show that diversity is strongly positively correlated to Knowledge exploration with the values of 1 and 0.482 respectively at the significance level of 0.01.

	Div1	Div2	Div3	Div4	Div5	Div6	k.exp1	k.exp2	k.exp3	k.exp4	k.exp5
Div1	1	.215*	.290**	.044	.054	.248*	.094	-.076	.117	.158	.169
Div2	.215*	1	.122	.223*	.209*	.257**	.281**	.324**	.148	-.109	.237*
Div3	.290**	.122	1	-.007	.103	.197*	.161	.166	-.002	.058	.063
Div4	.044	.223*	-.007	1	.039	.168	.127	.181	.095	.240*	.161
Div5	.054	.209*	.103	.039	1	.040	.121	.060	.244*	.074	.147
Div6	.248*	.257**	.197*	.168	.040	1	.227*	.286**	.152	.034	.383**

k.exp1	.094	.281**	.161	.127	.121	.227*	1	.197*	.215*	.189	.089
k.exp2	.187	.324**	.166	.181	.060	.286**	.197*	1	.228*	.147	.214*
k.exp3	.117	.148	-.002	.095	.244*	.152	.215*	.228	1	.171	.446**
k.exp4	.158	-.109	.058	.240*	.074	.034	.189	.147	.171	1	.132
k.exp5	.169	.237*	.063	.161	.147	.383**	.089	.214*	.446**	.132	1

**** Correlation is significant at 0.01 level of significance.**

*** Correlation is significant at 0.05 level of significance.**

Table 2b: Correlation Matrix (item to item)

2. Regression Analysis:

To test the hypothesis of study, regression analysis was used in the third step. In order to examine the *H1* of the study, regression was run keeping Diversity as independent and knowledge exploration as dependent variable, the results of which are as follows:

<i>Variables</i>	<i>B</i>	<i>t-stat</i>	<i>Significance</i>
<i>Div</i>	.534	5.447	.000
R square = 23.2%		Adjusted R square = 22.5%	

*** Correlation is significant at 0.01 level of significance.**

Table: 3: Regression Analysis

The above table reveals that the coefficient of diversity is positive. The above table shows that the coefficient of Diversity is 0.534 which is significant at 0.01 level of significance. From this value we conclude that if we increase diversity by one unit, it will cause an increase of 0.534 in knowledge exploration. The t-stats of diversity are 5.447, which also show that the result is highly significant. The overall fit of the model is 23.2% (adjusted R square = 22.5%). Therefore diversity is found to be positively associated with knowledge exploration and we will accept *H1*.

Recommendation:

From the results of the study the following recommendations are drawn:

- Create an atmosphere which motivates diversity in workplace in order to get new knowledge.
- Regularly discuss your knowledge exploration schemes with the staff.
- Improve your knowledge management system for the sake of solving diversity related issues.
- Design a system that produces a competitive atmosphere where individual can prove him/herself better in knowledge.
- Prior risks should be mentioned and discussed before the solutions are implemented.
- The performance of staff should be observed carefully so that issues related to diversity may get an appropriate solution.
- A successful plan of diversity system must be implemented that provides the key to exploring new knowledge.

Conclusion:

From the study it is concluded that diversity will affect knowledge exploration positively or simply efficiency of knowledge to explore will increase as diversity increases.

Limitations and future research:

This study which we carried out and the procedure used in this have definite limitations. One of the important limitations of the study was that the sample size was not big enough, so we got limited response. Future research must take place on a larger sample in order to study such a relationship more deeply and thoroughly.

Second limitation of the study was deficiency of resource and short time due to which data was not collected from a miscellaneous set of organization and from all fields of life.

Future studies should collect data from a much varied set of organizations.

In addition the research was just limited to 2 variables only. Future studies should include variables more than 2. Thirdly there was not enough data on these two variables so now it is the area of focus.

Finally due to insufficient budget the data collection was made from the organizations of Pakistan, particularly from organization in Baluchistan only, future research should extend the study in different frameworks having a sufficient budget in order to increase its applicability to a much extensive framework.

BIBLIOGRAPHY:

- Almeida, Paul and Kogut, Bruce. 1997. "The exploration of technological diversity & geographical localization of innovation." *Journal of Small Business Economics* 9: 21-31.
- Bassett-Jones, N. 2005. "The Paradox of Diversity Management, Creativity and Innovation." *Creativity and Innovation Management* 14(2): 169–175.
- Blomberg, Jesper and Werr, Andreas. 2006. "Boundaryless management – Creating, transforming and using knowledge in inter-organizational collaboration. A literature review." Working Paper Series in Business Administration 2. Stockholm School of Economics.
- Bolli, T. and Worter, M. 2013. Technological diversification & innovation performance, KOF Working Papers No. 336, June, Zurich.
- Jackson, Susan E. and Ruderman, Marian N. (Ed). 1995 *Diversity in work teams: Research paradigms for a changing workplace*. Washington, DC, US: American Psychological Association.

- Dahlin, Kristina B., Weingart, Laurie R. and Hinds, Pamela J. 2005. Team diversity & Information Use. *Academy of Management Journal* 48: 1107-1123.
- Lay, J. Josephine. 2004. "Social context & social capital as enablers of knowledge integration. *Journal of knowledge management* 8: 88-105.
- Liu, C, Chiang, S.H, Chou, C. and Chen, Sherry Y. 2010. "Knowledge exploration with concept association techniques." *Online Information Review* 34(5): 786 – 805. doi: 10.1108/14684521011084627
- Laihonen, H. and Koivuaho, M. 2005. "The management of internal diversity in knowledge intensive organization." *Tornic journal of knowledge management* 4: 49-58.
- Mueller, P. 2005. "Exploring knowledge filter." *Ersa conference papers*.
- Peeters, T.J.G. (2013). "External knowledge search & use in new product development." Tilburg: Tilburg School of Economics and Management.
- Ramkrishnan, V. Tenkasi & Richard, J. Boland Jr. 1998. "Supporting knowledge diversity in knowledge intensive firms a new frontier for information system design." *CEO Publication G94-7(250)*.
- Rosado, C. 1997. Revised in 2006. "What Do We Mean By "Managing Diversity"?" Originally Published in *Workforce Diversity*, edited by Sumati Reddy, Vol. 3: Concepts and Cases. Hyderabad, India: ICAFAI University.
- Smith, Mark E. & Isabel, M. Prieto. 2008. "Dynamic capabilities & knowledge management an integrative role for learning." *British Journal of Management* 19: 235-249.
- Staples, Sandy D. and Webster, J. 2008. "Exploring the effects of trust, task interdependence and virtualness on knowledge sharing in teams." *Information Systems Journal* 18(6): 617-640.

Thomas, David A. and Robin J. Ely. 1996. "Making differences matter a new paradigm for managing diversity." *The magazine* 5: 12.

Vanhaverbeke, Wim, Li, Ying, and Van de Vrande, Vareska. 2009. *The dual role of external corporate venturing in technological exploration*. MPRA Paper No. 26488 Online at <http://mpa.ub.uni-muenchen.de/26488/>