

Impact of Communities of Practice (CoPs) on Inter-University Research Collaborations in Balochistan

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Abstract

Alliances and partnerships are approaches in which organizations can work together to obtain defined goals. The need for faster, more flexible, and less risky ways for organizations has increasingly led towards the formation and proliferation of networking strategies and partners. Teams are more effective than individuals as knowledge and skills are shared among groups to reach the knowledge targets. However, Communities of practice (CoP) can provide exceptional benefits and reveal new opportunities for knowledge sharing including alternative sources to support academic programs for researchers and faculty in the universities through innovative learning environments and promoting research culture. This paper aims at assessing that how Communities of Practice – CoPs influence research teams through developing knowledge-base, academic alliances, and research collaboration among universities of Balochistan. This study presents that CoPs positively affects developing academic linkages / alliances with other universities of the region for knowledge-sharing. It elucidates the overall impact of CoPs on building alliances among universities. The research follows a mixed-method approach with qualitative and quantitative research. However, the study concludes that CoP influences the process of knowledge-sharing through developing and managing linkages among universities for the promotion of research culture and innovation. Based on the findings, the study recommends further horizons for similar research pertaining to the knowledge transfer and barriers in knowledge-sharing for CoPs within organizations and institutions.

Keywords: *Knowledge Management, Community of Practice, Academic Alliance, Knowledge Base, Research Collaborative Environment.*

1. Introduction

There are some intangible resources, which are normally considered as one of the crucial suppliers to acquire competitive advantage. These types of intangible assets or resources include non-physical items like; intellectual capital, creation of knowledge, goodwill of an organization and experiences of people. Therefore, the concepts including; Knowledge creation and intellectual capital are being examined as sources and enablers of innovation. (Erasmus, 2005). At present, such knowledge based economies that have the ability to acquire, create and intentionally leverage its knowledge has transformed into a necessary element for global competitiveness. Thus, it has been observed that knowledge management has been brought into association by these companies that are increasing in number rapidly. The major objective behind these efforts is to utilize the asset related information in a more adequate and effective way, to achieve increased competitive advantage in the market. The idea of communities of practice (CoPs) has achieved increased consideration impressively. It is considered as one of the contributing factors for implementing knowledge management practices (Zboralski & Germunden, 2006).

Literature and evidences show that, the community based groups and collaborations, are the excellent methodologies inside the components exhibit area today. Likewise, the strategy for these inter-university research teams, to produce or make information and to broaden scholarly intellectual capital, is considered as a standout amongst other fit worth creation segment. While, as it might, the point of consideration of the study investigation, has a great part of the time been the limit of these CoPs during the process of Knowledge creation and intellectual capital, and its undertaking to manage and oversee CoPs inside an organization. A great deal of the information, which is being managed in this study, is accessible in both of the two structures of knowledge whether tacit or explicit. The purpose behind forming this paper is, to contribute determinedly towards new data creation, in understanding the general impact of CoPs on the individuals of inter-university collaborative teams, getting developed the best practices or procedures for organizing and managing such teams. Nonetheless, this research is intended to focus toward Higher Education Institutions in Balochistan. This research investigation is directed to inspect the overall effect of CoPs, which provides knowledge base, alliance and research collaborative culture among universities of the region.

1.1 Communities of Practice (CoP)

(Erasmus, 2005) portrays a CoP as unusual sort of informal networking framework that ascends up out of a significant preference; to comprehend and understand work even more practically, or to work even more precisely among members of a working group. For the most part, such workplaces or organizations do not cover with organization designated groups. Since they are made of human sociability and attempt to accomplish project necessities (especially those not anticipated and never again kept up by the proper formal association and conventional type of preparing for work). A CoP is usually not a formally endorsed group, nor a function that is perceived on an organization's hierarchical graph. A man's commitments to the network of communities which he is a part of, might also moreover at examples conflict with the interests, and rules of the organizations he works for.

A shared collection is the CoPs' assortment of assets for orchestrating and arranging that means; recollections, stories, theory, memories, language, structures, association, and different resources that shape a stock of understood information and frameworks that may be used by single individuals. Commonly shared commitment starts from the correspondence of people. Through

interrelating contributors, who are invigorated to deal their practices and the inflexible consequences of activities? Mutual commitment recognizes circumstances, like linkages and connections in a framework of an organization. However, it portrays such association as grounded in typical interest and activity, in inclination to just interact. Negotiating the arrangement of a joint organization offers a source of motivation and reasonableness to the CoP. Individuals facilitate and collaborate to characterize the significance, shape practices and react to a more recognized setting. This strategy gives (extra) than just an expressed reason, however making among human relations of common obligation that gets develop as a vital bit of the practice.

A set of framework structures designers for a PC situated organizational effort to share their knowledge insight through putting away their documentation for customer's or purchaser's frameworks in a typical information base. Before long, they discovered that they did not need having documentation of one another. They expected to perceive and appreciate the rationale that other system structure designers have utilized — why simply that product? with that particular gear and such assistance plan? They foresaw getting the thinking about the opposite system fashioners or designers. A Petro-physicist, who is predicting and hoping to interpret unusual data from deep sea oil, all around required assistance from a partner, who had recognizable and similar irregularities and is expected to help him by and large, while considering the verifiable information and an approach to interpret. Best throughout the discourse had been they sufficiently fit to acknowledge and get the weakness.

(Kanter, 2001) accepted seven fragments, which are remembered for the community network ideal that show closeness to the properties inspected by Wenger.

1. Enrollment/Participation: While they might be individuals, contrasts evaporate, and organizations work beyond their roles. Individuals experience a bond of promise or commitment to singular individuals that they presently do not insight to individual staff.
2. Boundaries/limits: These community groups are framed of free mixtures.
3. Obstinate/Voluntary movement: There might be a purposeful and intentional nature of the activities that are made by network individuals independent of their employment obligations.
4. Character/Identity: Community alludes to a geographical area. An organization or network exists considering the reality that few people figure and plot them as a prime part of it.
5. Essential normal culture: Mutual understandings, commonplace language, and fields permit a really dependable similarity of one for another.
6. Aggregate/total quality: Communities tap the force or quality of many.
7. Total obligation/All out commitment: As a community, network can be conveying restricting together the power, so administration to the network organization (Lesser and Storck, 2001).

1.2 Knowledge Bases or Knowledge Networks

"Information networks" according to Pugh and Prusak, fall (2013) are assortments of a gathering of individuals who come across together dynamically over spatial, various hierarchical/organizational, and disciplinary cutoff points to create and share an assemblage of information. The point of convergence of such association networks is ordinarily on creating, spreading, and executing information. For the advantage and non-profit materials of all sizes are seizing in this model to analyze and break down significantly more out of nowhere and group up profitably. By the by, for each compelling network organization, others have lost their steam due to a dreadful interest, an unclear direction, mixed and consolidated loyalties or, a mismatch of innovative advancement. Information networks are as antique as human trade, as learning

adjusted regularly unquestionably exchanged inside the creation and a transfer of products and services. In the archaic, or medieval times of societies and disciples, formal organizations existed among specialists, merchants, and craftsmen. In spite of the fact that, it has been past due, that Web-based composed endeavors have smoothed out the distinctive evidence and distribution of characterized knowledge, at decline cost, and over an extra physical distance. (Jacobson and Prusak) In his conventional article 1937, "The Nature of the Firm," Economist Ronald Coase anticipated that organizations and companies may likewise extend enormously as information charges fell.

1.3 Academic Alliances

Peter and Mathew (2008), Academic Alliances and instructive foundations have an all-encompassing history of teaming up through discussions and expertise or through various information exchange arrangements or agreements, facilitated educational plan (counting 2+3 projects and enunciation arrangements), shared resources/assets, athletic meetings, and joint research studies. They improve and extend the overall winning capacities of the individuals or accomplices. Sharing of library assets, joint buying, or cross-enlistments of students epitomize those varieties of disciplines. (Eckel, 2003) Institutes have regularly been needed to adjust accordingly to the changing societal needs. During the main excess century, this happened inside the setting of an ever-growing course of action of advanced education or higher education worked with extensive estimated financing of public cash. If society required more unmistakable and prominent master applications or master projects, organizations have introduced them. In the contemporary setting, nevertheless, the expectation of institutional duty remains non-diminishing regardless of an extending number of supportive resources kept natural elements. The colleges, and universities of this region is in a twofold predicament. They may anticipate adjusting up to social prerequisites; anyway, they don't reliably have the sources to reply to them. Our higher learning foundations are kept in the manners, they can make extra or additional capital, and attempts extricated resources by the strategies for decreasing managerial overhead and rearranging duties have habitually conveyed pyrrhic triumphs.

1.4 Research Collaborations

J and Ben, (1997) As it became obvious that, there have evidently been scarcely any endeavors to inspect the question of what establishes assessment research study collaboration. Notwithstanding, the idea has not been given any thought despite the way that we all accurately comprehend what is the expected time span. Nevertheless, is the idea or concept of joint exertion/coordinated effort so clearly evident and unproblematic? The definition of coordinated efforts or collaborations according to the dictionary shows the working endeavors of individuals on the whole to accomplish a typical target. Thus, Research study collaboration might be portrayed as a huge working endeavor of research analysts to get the normal reason for assembling new logical scientific information. Anyway, this may pose the inquiry of really how circumspectly research analysts should coordinate to include, 'collaboration'. At one over the apex, it might be contended that the general research network is one huge participation that major research study is an international activity where all experts work consolidated all things considered improving scientific information. They exchange thoughts and ideas on what to investigate and analyze next, which hypothesis ought to be attempted and checked, what new instrumentation to develop, how to depict their present experimental results to theoretical models, etc. In these differing assignments, members of a research study gathering will now convey among them as well as go after recommendations and help from others (and will regularly give

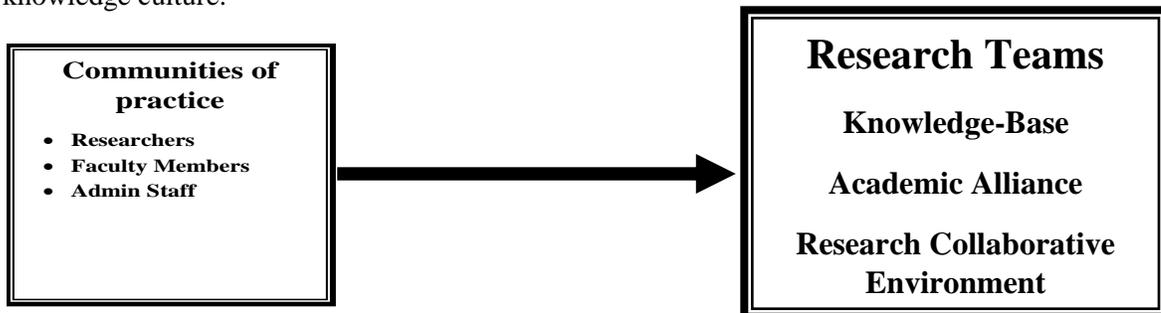
data subsequently). In our push to search for a definition for research study joint exertion, one chance may moreover be to fuse as a 'collaborator' to everybody familiarizing a segment with a specific bit of research. Regardless, this frail meaning of communitarian/collaborative research examination may moreover pass on such a couple of characteristics of research collaborators that it very well may be counter-intuitively awkward for each viable goal. Regardless, of course, one must give a tough definition as per which essentially those researchers, who truly passed on all the key research examination assignments or obligations throughout the hour of the endeavor project or task could depend on as teammates. This promptly runs clearly into a weight considering the truth, as we portray under, no single individual would conceivably need to have all the information expected to add to all pieces of an essentially erratic bit of research examination, an interdisciplinary task, or a 'significant science' experiment. Along these lines, the utilization of the strong and ground-breaking definition to, explain the 150 research specialists playing out an experimental excessive-energy science paper may need to grasp that none were the genuine collaborators in the light of the way that best had chipped away on a single task (for instance the advancement of the identifier), or if nothing else simply a section of the rule obligations, and had contributed little to the specific other constituent components of the undertaking.

1.5 Problem statement

There has been exceptionally limited research done on the necessities of the broad technique for Research and Development collective groups in this age of information. While considering the estimations and the money drew in with these Inter-University research teams, the quantity of the new groundbreaking considerations which are needed to fill the pipeline and the broad time period from a research examination to a genuine marketable item, the productiveness of these groups will reliably be of focal significance. This study highlights a prerequisite for associations to comprehend the worth and responsibility of CoPs engaged with the value creation process, especially in Inter-university collaborative groups. The study features the CoPs value for Inter-university research teams which are the most vital need of the time. This investigation expounds various parts of what rest of the researches being led on CoPs and an information sharing process among higher education institutions in light of the fact that no consideration has been paid so far on alliances or research exploration groups which are working inside the universities that are associated with one another through different CoPs in the locale of Balochistan.

1.6 Conceptual Framework

In a view of the research study, three dependent variables have been recognized. CoP is the independent variable here, which is recognized in the literature. According to the variable streamlined diagram, CoPs work as one of the most grounded networks that exist inside universities that are assuming an essential part in smoothing the progression of research-based knowledge culture.



1.7 Objectives of the study

This research study will focus following objectives:

1. To explore the existing situation of communities of practices (CoPs) in knowledge-sharing process of universities in Balochistan and inter-university research collaboration.
2. To explore the role of communities of practices (CoPs) in developing academic alliances among universities in Balochistan.

2. Research Hypothesis

H1: CoPs provide strong knowledge base to students that are enrolled in universities of Balochistan
H2: CoPs maintain positive relationship among Inter-university Academic Alliance in Balochistan.

H3: CoPs assist to establish research collaborative culture among universities of the region.

3. Research Methodology

This research examination consists of the mixed-method approach, where a sequential exploratory strategy has been utilized that includes collection and analysis of qualitative data followed by the collection and analysis of quantitative data. This research design consists of a mixed sequential exploratory approach containing firstly, subjective (qualitative) and then, quantitative method to deal with managing collected data and taking a look at the data (Creswell & Tashakkori, 2007). As of late, planning subjective and quantitative strategies changes into essential in research (Bryman, 2007) because of the way that mixed technique design gives more complete and definite data to accomplish the research examination goals and answer the research study questions. The exploration stage comprised of essential data (survey) simply like any current information (best practices that were being used in universities). In both of the two cases, the researcher's control over information was low as the researcher had no impact on the information. This research examination was done in stages. In the primary part, the qualitative research design included the use of semi-structured one-to-one interviews for information collection. Be that as it may, in the second segment survey was performed and information gathering was helped out through questionnaires.

Two sources of data were recognized for this research, specifically interviews, and a questionnaire which are implied/alluded to as a basic source of data and a literature review as secondary information, (Mouton, 2006). Simple Linear Regression between the variables was analyzed. In the first phase of research while conducting interviews it was important to narrate the statements of interviewees therefore, the narrative story technique was used. This strategy of qualitative research examination was sought after considering how appropriate respondents were hard to perceive and contact. Therefore, some senior researchers were best found and were motivated to share their knowledge and participated through referral networks. After that, in the second phase of quantitative research questionnaires were analyzed through different relevant tests which are explained below.

The information will be analyzed by utilizing Linear Regression. As per (Mukesh, Ruheena, Uma, Han, and S, 2011), "Linear regression is a methodology for modeling the connection or relationship between a scalar dependent variable y and one or more explanatory variables (or independent variables) denoted by X . We have utilized this data analysis technique to examine the data. The research exploration assessment includes the value of CoP on inter-university research teams and attempts to examine various factors of CoP and data sharing cycle among universities. The research exploration examination adds to the improvement of universities' academic culture

and is a model for other higher education institutions essentially. In this examination, survey questionnaires were circulated to very nearly 350 researchers, employees, PH.Ds, Associate professors and Professors in these establishments for the assessment and appraisal of the effect of Communities of practices on Inter-University Research Teams in Balochistan and in general hierarchical methodology, norms, culture, and it includes the current part of CoPs and the research groups through which they work to shape linkages among universities to profit the students, the sharp gathering of laborers furthermore the foundations themselves.

4. Data Analysis

4.1 Descriptive Analysis

The descriptive statistics include mean, median, mode, variance and standard deviation and range. The results of these descriptive statistics are shown below:

Table 1: Descriptive Statistics Results

<i>Variables Statistics</i>	<i>COP</i>	<i>KB</i>	<i>AA</i>	<i>RC</i>
<i>Mean</i>	1.081	1.017	0.968	1.045
<i>Median</i>	1.113	1.041	1	1.079
<i>Mode</i>	1.15	1	1.08	1.08
<i>Standard Deviation</i>	0.101	0.121	0.133	0.114
<i>Variance</i>	0.010	0.015	0.020	0.013
<i>Range</i>	0.45	0.51	0.60	0.56

Here in table 1, 1.081 is the average value of CoP, where 1.113 is the value of mean (median) and 1.15 is the most repetitive observation. 1.017 denotes the average value of KB, 1.041 is mean (median) and 1 is most repetitive observation. 0.968 is the value of Academic alliance AA observation, with 1 as a mean (median) and 1.08 is the most repetitive observation. However, 1.045 is the average value of Research Collaborations RC, with 1.079 as a mean (median) and 1.08 as most repetitive observation. However, the estimation of change (value of variance) and standard deviation of the CoP are 0.010 and 0.101 separately. While the value of standard deviation and variance of Knowledge Base are 0.121 and 0.015, the value of Academic Alliances AA for variance and standard deviation are 0.020 and 0.133, while the estimation value of variance and standard deviation for Research Collaborations RC are 0.013 and 0.114 respectively. Where the estimation value of standard deviation and variance for all observations of the changing variables are littlest, which shows that the estimation value of observations fall close to the mean and have least dispersion from the mean. The range between CoP, KB, AA, and RC are 0.45, 0.51, 0.60, and 0.56, it shows that there is least statistical dispersion.

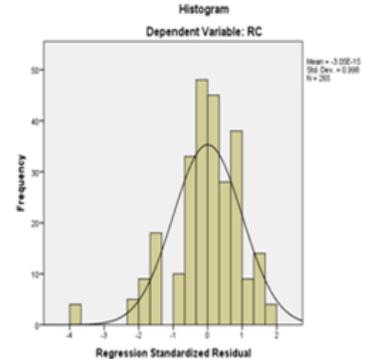
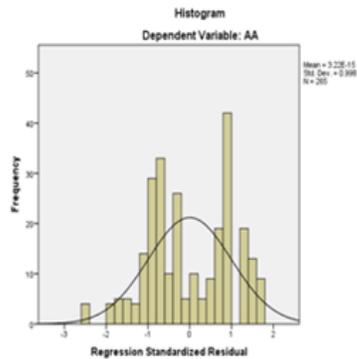
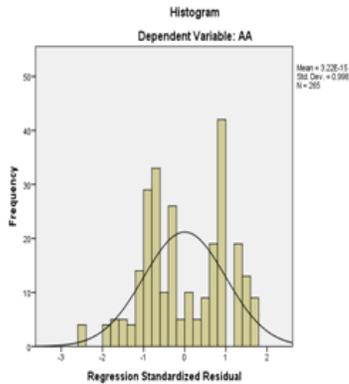
4.2 Data Normalization

The normalization of data was necessary before conducting regression analysis (Sekaran 2003).

Figure 7.2.1 Knowledge Base

Figure 7.2.2. Academic Alliance

Figure 7.2.3. Research Collaboration



The histogram figures From Figure 1shows that all the observations referenced above are distributed normally. These seem, by all accounts, to resemble ball-shaped and neither skewed from the two sides, so the information data is normally distributed.

4.3 Correlation Analysis

The Pearson method was used to examine the relationship of explanatory variable with its 5% significance level. The relationship observed among CoP and Knowledge Base is 0.558 and it is statistically significant at 5% level. The Academic Alliance shows 0.34 associations with CoP and is also significant at 5%. The connection among CoP and Research collaboration is 0.528 and is significant at 5%. The relationship among CoP and other dependent variable is also significant at 5%. In any case, the relationship of CoP with KB, and RC is high anyway shows less association with AA. The result outcomes are given in the table as:

Table 2: Pearson Correlation Results

<i>Variables</i>	<i>CoP</i>	<i>KB</i>	<i>AA</i>	<i>RC</i>
<i>CoP</i>	<i>1</i>			
<i>KB</i>	0.558**	<i>1</i>		
<i>AA</i>	0.340**	0.706**	<i>1</i>	
<i>RC</i>	0.528**	0.563**	0.564**	<i>1</i>
<i>RP</i>	0.566**	0.637**	0.544**	0.692**
<i>SCC</i>	0.412**	0.591**	0.589**	0.682**

4.4. Regression Analysis

This stage includes investigation of the effect of independent variable on dependent through regression analysis. The testing of hypothesis is defined as given below.

- H1: To evaluate the impact of CoP and Knowledge Base,
- H2: To checkthe impact of CoP and Academic Alliances.
- H3: To find the impact of CoP and Research Collaborations.

The results of regression analysis are given below Table 2.

Table 3: Regression Analysis Results

Variables	CoP and Knowledge Base		CoP and Academic Alliance		CoP and Research Collaborations	
	Unstandardized co-efficient	Standardized Co-efficient	Unstandardized co-efficient	Standardized Co-efficient	Unstandardized co-efficient	Standardized Co-efficient
Constant	0.296*** (0.066)		0.462*** (0.087)		0.402*** (0.064)	
CoP	0.667*** (0.061)	0.558	0.468*** (0.080)	0.340	0.595*** (0.059)	0.528

The values in bracket shows Standard Error

*** indicates significance level at 1%

There is a positive influence of CoP on the Knowledge Base with the co-efficient estimation value of 0.667 statistically significant at 1% level. It very well may be depicted as a one unit increase in the estimation value of CoP can construct Knowledge Base by 0.667 units on average, holding consistent effect of various different factors. The second hypothesis of CoP and Academic Alliance shows that there is a positive effect of CoP on Knowledge Base, that is 0.468 and significant at 1% level. However if, the CoP shows an increment by one unit then it causes an expansion of 0.468 units on average in the estimation value of academic alliance, holding a steady impact of different other variables. The third hypothesis shows a positive effect of CoP on Research Collaborations, with 0.595 value and is significant at 1% level. An expansion of one unit in the estimation value of CoP causes an increment of 0.595 units on average, holding the steady impact of different other variables.

The following diagnostic tests are used and give in Table 4.

Table 4: Diagnostic Tests

Description	CoP and Knowledge Base	CoP and Academic Alliance	CoP and Research Collaborations
R^2	0.311	0.116	0.279
Adjusted R^2	0.308	0.112	0.276
F- Statistics	118***	34.36***	101***

*** indicates significance level at 1%

R square value depicts how much variety in the estimation value of dependent variable has been clarified by the independent one. Where, 0.311 is the value of R square with 0.308 as the value of adjusted R square. R square represents 31% variation in Knowledge base which is clarified by CoP in first hypothesis. The value of R square is 0.116 with 0.112 as adjusted R square. Here R square shows 11% variation in Academic Alliance that is clarified by CoP in second hypothesis. In third hypothesis, 0.279 is the value of R square with 0.276 as adjusted R square. R square portrays a 28% variation in research collaborated effort which is clarified by CoP. It shows a goodness of fit that seems satisfactory in all cases. The value of F-Statistic in first hypothesis is 118, 34.368 in second and 101 in third, with 1% significant level. It shows an overall significant model in all cases.

The outcomes show that the CoPs have strong impact on framing and extending such information networks or knowledge bases among institutions by creating team coordination, advancing knowledge learning and development. It moreover reinforces knowledge base through improving the absorptive capability of specialist researchers, which is the capacity to find, adjust and

decipher the current existing knowledge into a more up to date one. The outcomes too show a solid relationship among these knowledge networks and communities of practice which assume a fundamental part in empowering knowledge and the accepted procedures to be shared and developed unreservedly. Similarly as, it shows a strong effect of community of practice. The community of practice energizes in outlining academic alliances that rely upon association or partnerships.

CoPs improve the technique for framing coalitions among various universities of Balochistan through shaping joint research projects that includes sharing of researches and educational program, it additionally incorporates sending of the personnel as visiting staff to upgrade and grow the cycle of information sharing adequately. Regardless, the results show a positive and significant anyway a less correlation among CoP and Academic Alliances as by and large to various components like knowledge base, research collaborated endeavors, research partnerships and CoPs do have some impact on these alliances.

5. Conclusion/Discussion

Research collaboration effort happens among individuals, teams, associations, and organizations. However this research paper particularly centers on present existing collaborations among higher education institutes of Balochistan regarding advancing exploration in research and collaborative culture inside the area. Gatherings, workshops, seminars, are the proof of these collaborative practices. Notwithstanding, the outcomes and discoveries show a positive impact of CoP on research collaborative efforts, and there exists a solid connection and just as an effect on research groups by advancing exploration cooperative culture among universities. This study featured the way that research collaborative efforts cuts all through the entire scope of business and the administration zones – from its methodology, across over legitimate issues, finance, R&D, strategic human resource management, organizational values, information management, development, culture and some more. The information accumulated from the interviews and the survey review gave important wellspring of information on Inter-University research groups, both at a practical and just as conceptual level.

The point of focus of this research examination and collaborations are those people, who are working on various tasks and are available as teams and groups. These individuals are progressively confined or compelled to make groundbreaking thoughts, contemplations, new products and services, with apparently little respects to the inside and out chronicled or recorded necessities for innovation, for example, potential outcomes to exchange information and informal networking. Time pressure frequently shields them from communicating and interacting in CoPs. The results and consequences of this research examination could likewise be a valuable wellspring of information for the scholarly community to develop fast-paced knowledge network throughout the country whenever actualized by the specialist practitioners. The same research examination can be drawn out and extended interestingly of social varieties as barriers of knowledge sharing cycle for growing such research teams all through the globe. The study would likewise offer a dynamic guide for implementable arrangements to enhance collaborative efforts and research culture among universities around the world. It contributes towards new data or information creation regarding evaluating the overall effect of CoPs in the team development cycle of Inter-university collaborative teams and getting the rising best procedures for managing such collaborative teams. It has featured significant developing hierarchical and strategic best procedures as is at present an essential factor in R&D groups and collaborative tasks. It impacts on absolute hierarchical methodology, standards, culture and principles, which should be upheld by

appropriate strategic human resource (HR) management approaches and structures. The research examination led to analyze and investigate the function of CoP for Inter-university research alliances and groups which may likewise end up being an innovative answer for speedy information sharing among higher education institutes. Same investigation can likewise be done across Pakistan to investigate the effect of CoPs on information and research sharing as Balochistan region contains a very less numbers of universities that are attempting to contribute through CoPs. In the event that this exploration study is to be directed across Pakistan, the research examination discoveries would lead towards hierarchical developments. At present, the investigation explored the effect of CoPs on research teams within universities of the province keeping up the time thought view and assets required. Nonetheless, the elements of assessing the effect of CoPs on information creation, innovation of management and building global coalitions can likewise be investigated in detail.

References

- Bryman, A. (2007). Barriers to integrating quantitative and qualitative research. *Journal of Mixed Methods Research*, 1, 8-22.
- Erasmus, R. (2005). The impact of communities of Practices (cop) on inter-firm alliance research teams. *University of South Africa*, 1-132.
- Frankham, J. ((2006). 'Network Utopias and Alternative Entanglements for Educational Research and Practice',. *Journal of Education Policy*, 21, 6., 661-677.
- Hermanmiller.inc. (2008). Making room for collaboration.
- J, S. K., & Ben, R. M. (1997). WHAT IS RESEARCH COLLABORATION? *ESRC Centre for Science, Technology, Energy and Environment Policy. Research Policy*, 26, pp 1-18.
- Kanter, R. (2001). *Evolve! Succeeding in the Digital Culture of Tomorrow*. Massachusetts.: Harvard Business School Press.
- KFPE. (1998). Guidelines for Research in Partnership with Developing Countries. *Swiss Commission for Research Partnership with Developing Countries*.
- Leedy, P. D. (1997). *Practical research: Planning and design* (6th Edition). *New Jersey: Prentice-Hall*.
- Lesser, E., & Storck, J. (2001). 'Communities of Practice and Organisational Performance'. *IBM Systems Journal*, Vol. 40., pp. 831-841.
- Mouton, J. (2006). *How to succeed in your master's and doctoral studies: a South African Guide and Resource Book*. Pretoria: Van Schaik.
- Mukesh, Ruheena, J., Uma, G., Han , J., & S, S. (2011). ross-species applicability of chicken microsatellite markers for investigation of genetic diversity in Indian duck (*Anas platyrhynchos*) populations. *African Journal of Biotechnology* Vol. 10(76), pp. 17623-17631.
- Peter, D. E., & Mathew, H. (November 2008). Developing Academic Strategic Alliances: Reconciling Multiple Institutional Cultures, Policies and Practices. *Scholarly Commons*, pp: 613-637.
- Pugh, K., & Prusak, L. (Fall 2013). Designing Effective Knowledge Networks. *MITSloan Management Review*. Vol. 55 No.1, pp. 78-89.
- Quintas, P., & Tim Ray, E. (2002). *Managing knowledge in an Organizational context: study guide for The Open University course B832 U4: Managing knowledge*. UK: University of South Africa.

Quintas, P., Jones, G., & Demaid, A. (2002). *An Introduction to Managing Knowledge: study guide for The Open University course B832 U1:Managing Knowledge*. . Uk: University of South Africa.

S., P. (2007). *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies*". Princeton, New Jersey : Princeton University Press.

Schwardt, T. A. (2007). *The SAGE Dictionary of Qualitative Inquiry* (3rd ed.). . University of Illinois, Urbana-Champaign.

Stark, D., & DiMaggio, P. (2001). '*Ambiguous Assests for Uncertain Environments: Hetterarchy in Postsocialist Firms*'. In: *The Twenty-First-Century Firm: Changing Economic Organization in International Perspective*. New Jersey. USA: Princeton University Press.

Van, W., & C, P. R. (2001). Building Effective Communities in Henley Knowledge Management Forum Second Annual Conference. *Hanley Management College*.

