

Role of Case Studies in Development of Managerial Skills: Evidence from Khyber Pakhtunkhwa Business Schools

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Abstract

The problems in accounting and Finance are getting complex day by day and the situation demands from the accounting and finance students to have a better knowledge of real world complexities and have the relevant judgmental and analytical skills to analyze, solve and find alternative for these problems. The objective of this study is to measure the perception of Khyber Pakhtunkhwa business schools student's perceptions for the usefulness of case studies in development of managerial and accounting & Finance related skills. Data was collected from MBA (Final) students familiar with the case studies, through questioners. The study focused on how the students value case studies in their courses and perceive it as a useful teaching technique. Analysis of the result reveals that the students perceived case studies as important technique in improving and developing their skills about the real world problems solving approaches. This study is useful for both teachers and students who use or intend to use case studies as learning and teaching technique. The implication of case studies has been discussed along with the limitations of the study and direction for future research.

Keywords: Case Studies, Managerial Skills, Knowledge, students Perceptions.

Introduction

The method of case method has long been accepted as an important method for training personnel and administrators. It is a method of learning based on active participation and cooperative or democratic discussion of a situation faced by a group of managers. The methods of discussion also replicate the manners in which most decisions are taken in practice. It involves replicating discussions with managers, peers and subordinates. If properly used, it has the power to improve the acquisition of knowledge, skills and attitudes (Management of Agriculture research, Appendix. 2, 1997). The most important and valuable teaching technique are considered to be the case studies, because they present the opportunities for students to makes them aware of the real world problematic situations, enable the students to develop

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and improve a range of skills needed for day to day business situations. A broad range of skills and abilities have been identified by conducting various studies upon the use of case studies (Bonner, 1999). The most important perceived benefit from the use of case studies is that they enable the students to come across with the situation of real world practical problems especially with decision making (Weil, et al, 2001).

Limited research work has been done on the usefulness of cases studies through out the world especially in Pakistan, to highlight the importance of case studies and the role they play in development of critical managerial skills in the students. This study is aimed at measuring students' perceptions of the relative usefulness of the case method as a tool for developing a set of desirable skills in students enrolled in Khyber Pakhtunkhwa Business schools.

Data was collected through questioners to measure the perceptions of the students about the usefulness of case studies for developing managerial skills. Data was analyzed to recognize the key benefits learned from the use of case studies, as ranked by the students. Main concentration is on gender based and public versus private universities statistical analyses. The result shows that students recognize major benefits from the use of case studies in decision-making as critical thinking. Differences in student perceptions about prior academic performance were also found. The findings of the study can assist educators to design more effective tools for teaching.

Background of the Study

Khyber Pakhtunkhwa is situated in Pakistan and lack industrial infrastructure while there are more than dozen of business schools. Some are listed below:

Qurtaba University D.I.Khan, IQRA University Peshawar, IM Studies, University of Peshawar, Institute of Management Sciences, Peshawar, IMS KUST, PRESTON Kohat, Malakand University and COMSATS Abbott Abad, Preston University Peshawar, CECOS University Peshawar. IBMS Agriculture University Peshawar & Peshawar Business School. These schools are awarding degree to more than thousand of students each year and there is no mean to equip them with practical training especially in accounting & finance discipline. Most of the audit firms are Islamabad based and provide services to industry situated in Khyber Pakhtunkhwa. As a result we have no capacity to develop accounting related skills in our graduates. The only mean is to confront the students with problem simulated in real world problems.

The study is related to the students' perception regarding usefulness of case study in developing managerial, accounting and finance related skills. The study was conducted with 150 MBA students, whom were familiar with case study based, at business schools in Khyber

Pakhtunkhwa in December 2011. 150 questionnaires were distributed amongst the students and round about 107 were collected completed in all aspects. The institutions selected were; Institute of Management Studies, University of Peshawar, Abdul Wali Khan University Mardan, Institute of Management Sciences KUST, Peshawar Business School, Preston University Peshawar, Cecose University Peshawar and Institute of Business and Management studies Agriculture University Peshawar.

Scope of the Study

The study focused on the perceived importance and benefits of the case studies in learning process by MBA students. More ever the perception of the students about the usefulness of case studies was tested on a set of 31 desirable skills. The main focus of the study is to find the differences in students opinions based on their knowledge and information about case studies and prior academic performance. In other words the investigation in the data relates to the differences in perception of the academically strong and weak students about case studies.

Literature Review

The most important benefit of the case studies is the way they expose students to the complex situations of the real world phenomenon especially in the case of decision making (Weil et al, 2001). The case study approach is important in the way they reflect and develop those organizational requirements that are necessary in 21st century. It accelerate learning, independence and trust, openness and integrity, emphasis the importance of non rational and intuitive and celebrate discussion and dialogue (Mikenna, 1999). In situations where learning is in real business environment, case based method is important method to necessary application of knowledge in all business discipline (Lee et al, 2001). Eston (1992) highlight the case base method is a basic tool for developing such skills which are important in decision making. Similarly Shapiro (1984) defines case studies as a way of facilitating the student learning and is useful in the development of skills and philosophy of real world management. In accounting context several features of the case studies has been describes by Winnes et al (1994). Case studies are issues the use of which requires judgmental and analytical reasoning skills to use. The consideration of realistic approaches requires using consideration of the complexity and ambiguity of the real business world and the presence of several solutions to the problems. All of these definitions are development of managerial and problem solving skills and the use of these skills in the real context. Case studies methods provides teachers many opportunities in managing their teaching task. They may use it in management, finance and economics and also in business culture and business ethics. It may also facilitate learning of the

students and may increase their vocabulary related to the case matter (Elezbieth, 2002). There is a well established use of cases in legal education also (Bonk and Smith, 1998). The use of cases by students and the benefits they derive from it represents another category of studies (Campbell and Lewis, 1999). There are different forms of case studies varying in length (Campbell and Lewis, 1991). Tran's disciplinary case studies are an adequate, flexible and global oriented approach to the organization and implementation of sustainability in learning process (Scholz et al., 2006). The most important skills developed by the case studies are the analytical and judgmental skills (Campbell and Lewis, 1991). Their argument about the success or failure about cases is that, they are preliminarily dependent on specific educational objectives and also on the practical implementation issues e.g. case studies may be effective if the learning objective from particular case is the improvement and development of analytical and judgmental skills and the lectures delivered in the classrooms and reading assignments may or may not be the crucial sources of highlighting basic accounting technique. A comprehensive teaching technique framework was presented by Bonner (1999) on the important learning objectives and shows that cases are a comprehensive teaching tool amongst the wide variety of teaching tools for an accounting instructor, to be used in relation with each other. Scholz et al., (2006) shows that the major strengths of Trans-disciplinary cases are that they are based on three sound paradigms, they are strictly organized and itself subject to organizing inquiry and adapting process. The basic aim and objective of cases to develop and practices a comprehensive approach to problem and to cope the students with an understanding of the root causes of the problem in the light of subject based knowledge to a simulated situation in a period of change (Hassal et al, 1998: p .326). While achieving this Hassal et al points out objectives covering the academic and individual skills e.g. students should have to evaluate, classify and organize information in a usable format to be in decision making process (p. 326). Layfield & Nti (1996) specifies that the importance of case based devility through World Wide Web should be examined from future studies. The researcher will analyze that the information received and downloaded are at equal download times. Cases are suitable for the development of cognitive skills (Bonner, 1999). The most important and commonly delivered benefit from case studies includes organizing and comprehensiveness of information, judgmental skills and analytical reasoning, improvement in communication and development of interpersonal skills, decision making realities, students and staff motivation and development (Hassal et al, 1998). Several ways identified based on problem based learning by Johnstone and Biggs (1998). They highlight cases as a source for enhancing the student's capabilities to use

cases for collection of relevant information and liking this information within the boundaries of case and also useful to encourage students in developing diagnostic reasoning skills. The major perceived benefit of case studies by students is the improvements in their ability in evaluating a particular situation by different perspectives and makes them able for considerations of alternatives solutions to that situation (Weil, Oyelere and Rainbury, 2002). In accounting education the empirical research on case studies is limited. In 1995 Friedlan the effect of teaching approach on students' perception of the needed skills and abilities for success in accounting related courses and practices. He argues that student's perceptions are greatly effected by teaching approaches. Hergert & Hergert (1990) founds that in business courses simulation was found a useful technique for learning by students. Cases used by Saudagaran (1996) along with other innovative characteristics to discourage a single solution approach and to focus on the uncertainty in accounting. He reached on the conclusion new courses in accounting improve the perceptions of the students. Hassel et al, (1998) conducted a study to measure the student's perception on the benefits of the case studies. Students were asked about a module to specify ten skills developed while using case studies. They all respond yes in this order, for negotiations skills, ability to work in a group, presentation skills, integrity and applying subject skills and knowledge, ability to question and arguments. The lowest yes response was for the question relating to the ability to recognize and accept leadership. 85% of the students in this study valued the case studies as a most important teaching technique for improvement and development of their knowledge. In respect of skills response was 90% and for personnel qualities the response measured was 62%.

Research Methodology

A comprehensive questionnaire was developed for capturing the perception of the student about case studies and this questionnaire was adopted from the study of Weil et al, (1999), which studied perception of the students about the perceived usefulness of case studies in an Advanced Management Accounting course, for a Malaysian students group and from this, a comprehensive questionnaire was developed. The questionnaire asks for some of the demographic information like student name, gender, age, language and past results in accounting and finance courses. The important part of the questionnaire was the 31 questions regarding the usefulness of case studies in development of managerial skills. To overcome the problem of differences in interpretation of the term case study, case study was defined in the questionnaire as 'an unstructured academic assignment, which requires information to be analyzed and organized, in an attempt to evaluate and select from alternatives course of action. 31 questions were placed in the

questionnaire about skills; abilities and knowledge that can be learned or gained through use of case studies. The questions were placed in random order and not appear under separate head in the list. students were asked to point out the extent to which the case studies help in understanding of each of the mentioned skills, by ranking the importance of the skill or abilities 7 point Likert-like scale ranging from 1 (not at all) through 4 (moderate) to 7 (extensively). Apart from these 31 skills, students were asked to mention three of the most important perceived benefits from the use of case studies in their course as teaching tool. Finally, students were asked to mention on the same scale how important they perceived the use of case studies as a learning method in the course.

Data Analysis

Usefulness of case studies in development of managerial skills was computed by adding the values assigned by the respondents and then dividing by total no of the respondents. In table 1 skill are placed in random as appear in the questioner. In table 2 the skills were ranked in descending order of their mean values. Level of agreement is also shown by the standard deviation of the student's responses for each variable. Table 3 shows the same information for public versus private sectors universities of Khyber Pakhtunkhwa and table 4 contains the information across gender. In addition the skills were presented in order of their importance for the students in development of managerial skills. Keeping in view the teaching methodology and environmental differences in the two sectors of the universities of Khyber Pakhtunkhwa data in the tables is organized according to the importance for each role of the case studies for the students in development of managerial skills. The analysis was carried out to highlight the possible differences in level of performance in the feeling of effect the case studies has in the development of managerial skills.

Table 1: All Students n=107

Skills	Mean	SD
Judgmental Skills	4.71	1.754
Different Component of Course	4.87	1.454
Interpretation Skills	5.00	1.619
Critical Thinking	5.51	1.369
Analytical Skills	4.94	1.583
Ability to Synthesize	4.78	1.488
Listening Skills	4.36	1.983
Prior Knowledge of Discipline	4.50	1.562
Problem Solving Skills	5.16	1.422
Decision with Incomplete Information	4.59	1.688

Skills in Evaluating Ideas	5.12	1.392
Motivation to study The Course	4.77	1.657
Skills in Asking Pertinent Questions	4.83	1.651
Active Participant in the Learning Process	5.00	1.619
Perspectives of the Different Parties	4.82	1.565
Difficulties of Decision Making in Business	4.95	1.684
Written Communication Skills	4.72	1.758
Relation of Theory to Real Life Practice	4.82	1.553
Application of Knowledge to new Situation	5.03	1.482
Practical Business Operation	4.84	1.499
Identification of Relevant Data in the Case	5.02	1.602
Ability to Organize Data	5.17	1.593
Problem Identification Skills	5.20	1.526
Conceptual Thinking	5.15	1.659
Distinguishing Facts from Opinion	4.78	1.538
Persuasive Skills	5.06	1.547
Situation Involving Uncertainty & Ambiguity	5.11	1.580
Ability to Summarize Available Information	5.07	1.546
One Correct Solution to Business Problems	4.93	1.633
Technical Knowledge of the Discipline	4.96	1.414
Responsibility for own Learning	5.21	1.548

Figure 1: Over All Score on Pie Chart

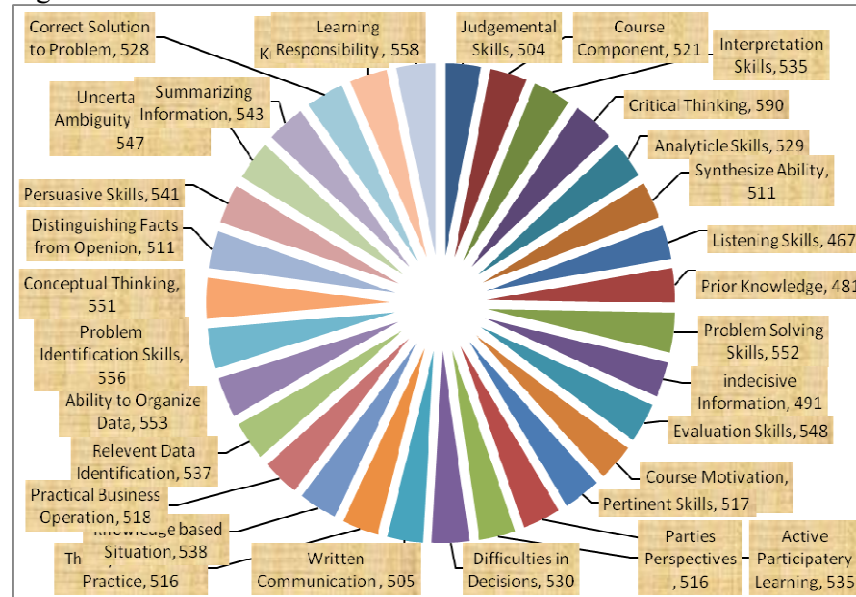


Table 2: All Students = n (107)

Rank	Skills	S.D	Mean
1	Critical Thinking	5.51	1.369
2	Responsibility for own Learning	5.21	1.548
3	Problem Identification Skills	5.20	1.526
4	Ability to Organize Data	5.17	1.593
5	Problem Solving Skills	5.16	1.422
6	Conceptual Thinking	5.15	1.659
7	Skills in Evaluating Ideas	5.12	1.392
8	Situation Involving Uncertainty & Ambiguity	5.11	1.580
9	Ability to Summarize Available Information	5.07	1.546
10	Persuasive Skills	5.06	1.547
11	Application of Knowledge to new Situation	5.03	1.482
12	Identification of Relevant Data in the Case	5.02	1.602
13	Active Participant in the Learning Process	5.00	1.619
14	Interpretation Skills	5.00	1.619
	Technical Knowledge of the Discipline	4.96	1.414
15	Difficulties of Decision Making in Business	4.95	1.684
16	Analytical Skills	4.94	1.583
17	One Correct Solution to Business Problems	4.93	1.633
18	Different Component of Course	4.87	1.454
19	Practical Business Operation	4.84	1.499
20	Skills in Asking Pertinent Questions	4.83	1.651
21	Perspectives of the Different Parties	4.82	1.565
22	Relation of Theory to Real Life Practice	4.82	1.553
23	Distinguishing Facts from Opinion	4.78	1.538
24	Ability to Synthesize	4.78	1.488
25	Motivation to study The Course	4.77	1.657
26	Written Communication Skills	4.72	1.758
27	Judgmental Skills	4.71	1.754
28	Decision with Incomplete Information	4.59	1.688
29	Prior Knowledge of Discipline	4.50	1.562
30	Listening Skills	4.36	1.983

Table 3: Public and Private Universities based Ranking

Rank			Public Universities		Private Universities	
PbU	Pr U	Skills	Mean	S.D	Mean	S.D
1	28	Practical Business Operation	5.91	9.590	4.94	1.252
2	21	Difficulties of Decision Making in Business	5.56	5.342	5.06	1.544
3	3	Critical Thinking	5.49	1.490	5.54	1.232
4	13	Problem Identification	5.19	1.493	5.18	1.574

		Skills				
5	20	Problem Solving Skills	5.16	1.667	5.12	1.100
6	10	Conceptual Thinking	4.98	1.904	5.30	1.313
7	7	Skills in Evaluating Ideas	4.95	1.517	5.38	1.193
8	5	Ability to Organize Data	4.91	1.766	5.46	1.328
9	11	Persuasive Skills	4.89	1.655	5.20	1.385
10	17	Interpretation Skills	4.88	1.712	5.16	1.503
11	2	Responsibility for own Learning	4.88	1.753	5.62	1.159
12	14	Active Participant in the Learning Process	4.86	1.875	5.18	1.273
13	15	Application of Knowledge to new Situation	4.86	1.563	5.18	1.351
14	8	Ability to Summarize Available Information	4.79	1.688	5.34	1.303
15	19	Analytical Skills	4.77	1.680	5.14	1.457
16	6	Situation Involving Uncertainty & Ambiguity	4.77	1.604	5.46	1.446
17	23	Different Component of Course	4.75	1.539	5.02	1.363
18	9	Identification of Relevant Data in the Case	4.75	1.796	5.34	1.303
19	22	Perspectives of the Different Parties	4.65	1.620	5.04	1.484
20	26	Motivation to study The Course	4.63	1.789	4.98	1.491
21	27	Relation of Theory to Real Life Practice	4.63	1.599	4.98	1.450
22	24	Ability to Synthesize	4.60	1.522	5.02	1.464
23	12	Skills in Asking Pertinent Questions	4.58	1.668	5.20	1.578
24	25	Judgmental Skills	4.51	2.001	5.00	1.400
25	4	Technical Knowledge of the Discipline	4.47	1.513	5.50	1.055
26	18	Distinguishing Facts from Opinion	4.37	1.676	5.16	1.235
27	1	One Correct Solution to Business Problems	4.28	1.800	5.64	1.985
28	16	Written Communication Skills	4.26	1.914	5.18	1.424
29	29	Decision with Incomplete Information	4.26	1.885	4.94	1.361
30	31	Prior Knowledge of Discipline	4.0877	1.693	4.88	1.239
31	30	Listening Skills	3.88	2.001	4.94	1.823

Note: Public Universities students= 53%, n=57, Private Universities students=47%, n=50

Figure 2

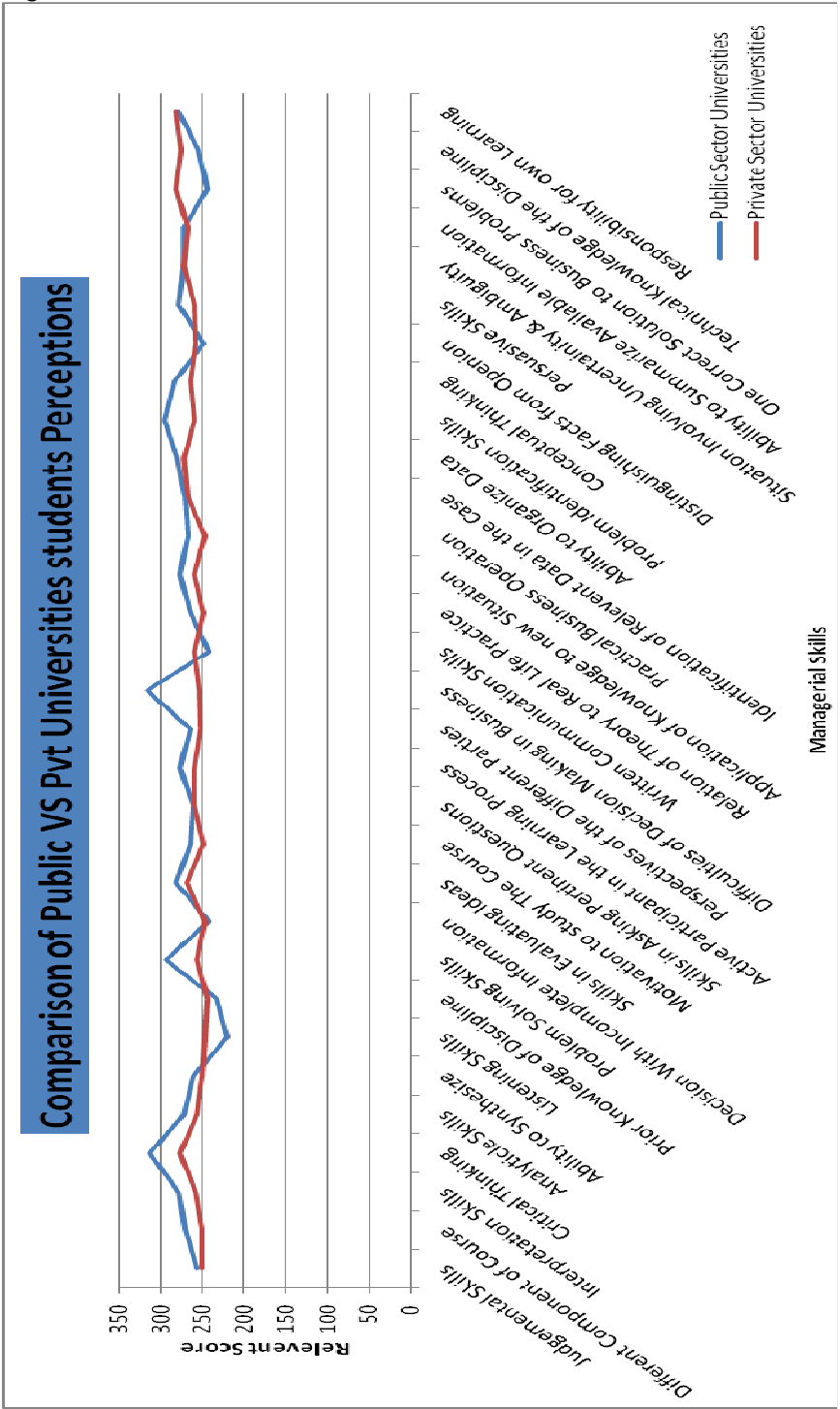
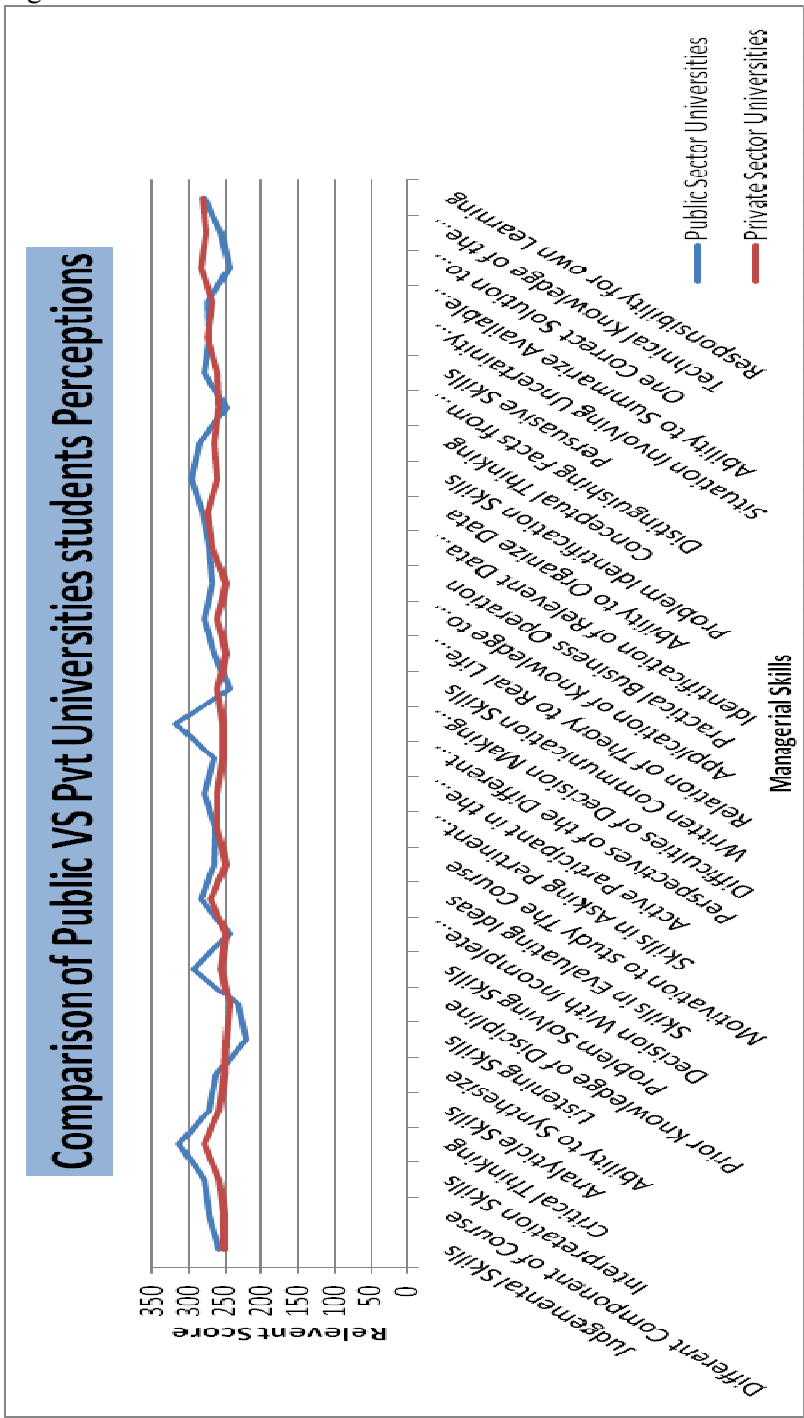


Table 4: Gender Based Ranking

Rank		Skill	Male		Female	
M	F		Mean	S.D	Mean	S.D
1	23	Difficulties of Decision Making in Business	5.92	4.952	4.57	1.885
2	8	Responsibility for own Learning	5.44	1.341	4.93	1.778
3	3	Critical Thinking	5.49	1.490	5.54	1.232
4	11	Ability to Organize Data	5.38	1.385	4.86	1.825
5	12	Conceptual Thinking	5.38	1.518	4.84	1.817
6	29	One Correct Solution to Business Problems	5.37	1.248	4.43	1.970
7	4	Problem Solving Skills	5.27	1.285	5.05	1.628
8	6	Skills in Evaluating Ideas	5.25	1.367	5.02	1.438
9	13	Ability to Summarize Available Information	5.24	1.292	4.84	1.842
10	21	Technical Knowledge of the Discip	5.24	1.201	4.61	1.631
11	2	Problem Identification Skills	5.22	1.539	5.20	1.549
12	14	Identification of Relevant Data in the Case	5.21	1.439	4.84	1.829
13	7	Situation Involving Uncertainty & Ambiguity	5.21	1.515	5.00	1.684
14	15	Application of Knowledge to new Situation	5.16	1.428	4.84	1.554
15	9	Interpretation Skills	5.10	1.701	4.91	1.522
16	25	Skills in Asking Pertinent Questions	5.10	1.593	4.57	1.690
17	27	Perspectives of the Different Parties	5.10	1.467	4.50	1.677
18	10	Active Participant in the Learning Process	5.06	1.390	4.91	1.939
19	5	Persuasive Skills	5.06	1.585	5.05	1.509
20	17	Analytical Skills	5.03	1.636	4.80	1.503
21	24	Relation of Theory to Real Life Pra	5.02	1.519	4.57	1.605
22	1	Practical Business Operation	5.00	1.231	6.23	1.914
23	18	Different Component of Course	4.90	1.353	4.80	1.608
24	28	Judgmental Skills	4.89	1.381	4.45	2.215
25	20	Distinguishing Facts from Opinion	4.84	1.472	4.75	1.672
26	22	Motivation to study The Course	4.83	1.592	4.68	1.762
27	16	Written Communication Skills	4.81	1.645	4.61	1.967
28	31	Ability to Synthesize	4.78	1.539	4.84	1.478
29	23	Prior Knowledge of Discipline	4.67	1.380	4.20	1.746
30	29	Decision with Incomplete Informati	4.65	1.696	4.61	1.728
31	30	Listening Skills	4.44	1.907	4.30	2.130

Note: Female=39 % n= 44, Male= 61%, n=63, Total Students=107

Figure: 3



Result and Discussion

The data is of such nature that all the tests conducted are non parametric. In this section preliminary statistics of the respondents discussed first like demographic characters and the perceived importance for all the skills of the case studies. Over all perceived importance of case studies are presented first, then differences on the basis of gender followed by public and private sector universities differences.

Preliminary Statistic

Out of all students 39.44% were female and the remaining 61% were male and 47% (50) of the respondents were from private sectors and 53% (57) were from public sector universities. A grade was obtained by 70% (75) students in previous accounting and Finance papers and remaining 30% (32) scored B grade. The age of respondent was b/w 21-25 year and only a single female student found 32 years. These score are sufficient for such type of study. In MBA degree a student has to cover all the functional areas in his course likes accounting, marketing & HR etc. It is therefore worth to know about the past performance of the students in accounting and finance. The results of the data collected from the respondents for the perceived benefits of case studies in development of managerial skills are summarized in the 4 table. Table 1 shows overall perceived benefits in development of managerial skills and Table 2 shows results in descending orders of the skills ranked, Table 4 on public and private sector universities based analysis.

Results indicate that the five highest ranked skills are, critical thinking, responsibility for own learning, problem identification skills, ability to organized data and problems solving skills. These skills are developing insight to managerial skills in the business world. The critical skill is mentioned in most of the literature as an important benefit of case studies. The lowest perceived benefit of the case studies is to help students in developing of communication skills with respect to public and private universities based ranking, there are lot of differences among students perception for usefulness of case studies e.g. public university ranked insight to practical business operation is the most perceived benefits of use of case studies which private universities student ranked. One correct solution to because problems highest, while the public university students ranked listening skills is the lowest perceived benefit and private university students ranked prior knowledge of the discipline is the lowest one.

The results on genders based analysis are also different form each other as the public and private universities results. Male students ranked difficulties of decision making in because in the most important benefits of case studies and listening skills as lowest while female students ranked practical business operations as the highest one while

prior knowledge of the discipline in the lowest on perceived benefit of case studies. The results in the entire table are mixed and no two groups are agreeing for common perceived benefits. The study is consistent with weil et al. (1999), who also found significance difference between the perception of male and female students perception for the usefulness of case studies. None of the group scored above average.

Summary and Conclusion

From the analysis we can conclude that students perceive use of the case studies up to some extent as an important tool for development of their managerial skills and adds to the identified literature (wine et al; 1994) The most important benefit of the case study is that they expose students to real world complexity in relation to decision making. The results indicate a need for case based stream of lectures in the course and to increase students' abilities about the real world complexities and skills for solving problems. The skills like problem identification and ability to organize data confirmed the usefulness of case studies for development of managerial skills in the students, though the perceived benefits of case studies differ across gender and universities. The result shows that the case studies provide more benefits to students in their course related problems also. Results indicate that case studies are really beneficial in learning process. On the basis of findings of the study there is a need for increasing use of case studies in the course so as to develop the students abilities and can be used as an educational tool in business courses.

Limitations, Suggestions for Further Research

The limitations of the study provide scope for further research in this area. The respondents were only selected from 07 universities of Khyber Pakhtunkhwa. Four of them were Public Sector universities and three were private sector universities. Most of the respondents used limited numbers of case studies in their course.

The study may be conducted at a broad level and also to give more practices to the students of case studies before filling questioner from them. Students' perception may also be studied before and after using case studies as an educational tool or the study may be conducted at group level are those students should be respondents who are biased towards case studies. The study does not encompass personnel or learning style differences. The study does not examine that the benefits are only perceived or in reality gained by the students through the use of case studies.

Reference List

- Bonk, C. J. and Smith, G. S. (1998) Alternative instructional strategies for creative and critical thinking in the accounting curriculum. *Journal of Accounting Education* 16(2), 261–93.
- Bonner, S. E. (1999) Choosing teaching methods based on learning objectives: an integrative framework. *Issues in Accounting Education* 14(1), 11–39.
- Campbell, J. E. and Lewis, W. F. (1991) Using cases in accounting classes. *Issues in Accounting Education* 6(2), 276–283.
- Easton, G. (1992) Learning from Case Studies. Hemel Hempstead, Prentice-Hall.
- Elzbieth, J. (2002) Case Studies in Business English Teaching. [Online] Available from < http://conference.pixel-online.net/edu_future/common/download/Paper_pdf/ITL33-Jendrych.pdf >
- Friedlan, J. M. (1995) The effects of different teaching approaches on students' perceptions of the skills needed for success in accounting courses and by practicing accountants. *Issues in Accounting Education* 10(1), 47–63.
- Fulmer, W. E. (1992) Using cases in management development programs. *Journal of Management Development* 11(3), 33–37.
- Hassall, T., Lewis, S. and Broadbent, M. (1998) Teaching and learning using case studies: a teaching note. *Accounting Education*, 7(4), 325–334.
- Hergert, M. & Hergert, R. (1990). Factors affecting student perceptions of learning in a business policy game, *Developments in Business Simulation & Experiential Exercises*. 17, 92-96.
- Johnstone, K. M. and Biggs, S. F. (1998) Problem-based learning: introduction, analysis, and accounting curricula implications. *Journal of Accounting Education* 16(3/4), 407–27.
- Layfield, K. D. & Nti N. O. (1996) Student perceptions toward case based instruction delivered via the worldwide web.
- Lee, S. H., Lee, J., Liu, X., Bonk, C. J., & Magjuka, R. J. (2009) A review of case-based learning practices in an online MBA program: A program-level case study. *Educational Technology & Society*, 12(3), 178–190.
- Management of agriculture research. (1997) Training Manual, Appendix; 2 Indian Institute of management.
- McKenna, S. (1999). Organisational learning: 'live' case studies and the consulting process. *Team Performance Management*, 5(4), 125-135.
- Roland, W. S., Daniel J. L., Arnim W., Alexander, I. W. and Michael, S. (2006) Trans disciplinary case studies as a means of

- sustainability learning Historical framework and theory, *International Journal of Sustainability in Higher Education* Vol. 7, 226-251.
- Saudagaran, S. M. (1996) The first course in accounting: an innovative approach. *Issues in Accounting Education* 11(1), 83–94.
- Scholz, R. W., Daniel J. L., Arnim W., Alexander, I. W. and Michael, S. (2006) Trans disciplinary case studies as a means of sustainability learning Historical framework and theory, *International Journal of Sustainability in Higher Education*, 7(3), 226-251.
- Shapiro, B. P. (1984) *Hints for Case Teaching*. Boston, Harvard Business School Publishing Division.
- Weil, S., Laswad, F., Frampton, C. M., & Radford, J. (1999). *Cultural and other influences on student perceptions of the use of case studies and study groups in management accounting*. Lincoln University. Commerce Division.
- Weil S., Oyelere, P., Yeoh, J. & Firer, C. (2001) Honors students' perception of the usefulness of case studies for learning, *Commerce Division Discussion Paper* No. 83.
- Weil, S., Oyelere, P., Rainsbury, E. (2002) The usefulness of case studies in developing core competencies in a professional accounting programme: a New zealand study, *Centre of Accounting Education and Research*.
- Wines, G., G. Carnegie, G. Boyce, and R. Gibson (1994) *Using Case Studies in the Teaching of Accounting*. Victoria: Australian Society of Certified Practicing Accountants.