

## **CHAPTER FOUR**

### **DATA ANALYSIS AND FINDINGS**

#### **4.1: Introduction**

This research investigated the efforts and responses made by some private colleges and universities in Oman in implementing ten aspects of quality assurance policy. Students' feedbacks regarding the condition of resources and facilities and the quality of study programs and instructional process were used to assess, in part, the status of the implementation of quality assurance and accreditation in some private colleges and universities in Oman. Furthermore, managers' feedbacks regarding the management operations and actions in implementing ten aspects of quality assurance for accreditation were also obtained through survey and interviews. Managers included general managers, university presidents (or vice chancellors) and vice presidents. The data analyses in this chapter were aimed at answering the following questions:

1. Focusing on students as the main customer, what are their perceptions on the quality of study programs and infrastructure of private colleges and universities in Oman?
2. Based on students' survey responses, what are the main factors to be considered and their interrelations in the QA assessment model for private higher education institutions in Oman?

3. In general, based on college and university managers' perceptions, what are the extent and level of implementation in ten aspects of quality assurance for accreditation undertaken by private colleges and universities in Oman?
4. In terms of college or university management, what are the managers of private colleges/ universities' reactions or feedbacks in carrying out the ten aspects of quality assurance?
5. Based on the college or university managers' experience as policy implementers, what are the main approaches and techniques used by college/ university managers in implementing quality assurance process in Oman?

Eight (8) private institutions (colleges and universities) were involved in this study. The research data were collected by two survey questionnaires: one set distributed to students; and one set to managers in eight private colleges in the Sultanate of Oman. Basically, students were asked to rate, based on their perception, the quality of their college's services, facilities, study programs, and instruction. The questionnaire for students had 25 items. The college managers, on the other hand, were asked to rate the quality of their college in ten aspects of quality assurance, namely:

- Mission
- Governance
- Effective Management
- Academic Program
- Teaching Staff

- Learning Resources ( library, laboratories, and educational technology)
- Students Selection and Services
- Study Program Evaluation
- Physical Facilities
- Financial Resources

The questionnaire for the college managers had a total of 218 items. Apart from the survey, eight managers were interviewed to elicit their responses regarding the methods and strategies they used for implementing the quality assurance policy and the problems their college faced.

This chapter presents the analysis of research data and findings. The chapter has three parts: Part I deals with the analysis and results from the student survey data (quantitative part), and Part II pertains to the analysis and results from the manager survey data, and Part III pertains to the analysis and results of the interview data (qualitative part). The survey data were analyzed using the SPSS version 13.0.

#### **4.2: Part I: Analysis and Results of the Student Survey on the Quality of Study Programs in Private Colleges in Oman**

Table 4.1 next page summarizes the demographic background of students involved as respondents in this research. The student respondents were selected at random by their college managers, who only picked students that drew marked numbers. Stratified sampling was done according to the level of study programs

(diploma, bachelor, master). As many as 411 students (40 percent of the total number in eight colleges) became the research respondents.

The results in Table 4.1 show that among the 411 students who took part in the study, 178 (43.3 %) were males and 233 (56.7 %) were females. This indicates that more than half of the respondents were females. The results actually reflect the reality of participation by gender of student population in private higher education institutions in the Sultanate of Oman.

Table 4.1: Summary (n, %) of the Distribution of the Respondents' Background Characteristics [N=411]

	Characteristics	N	%
Gender	Males	178	43.3
	Females	233	56.7
Age	16-20 years old	169	39.5
	21-25 years old	191	41.1
	26-30 years old	31	7.5
	30 years and above	20	4.9
Sponsor	Government	170	41.4
	Self-sponsor	241	58.6
Level of Study	Diploma	234	56.9
	Bachelor Degree	160	38.9
	Master Degree	17	(4.2)

As for the respondents' level of study, 234 (56.9 %) of them were registered in diploma courses, 160 (38.9 %) were enrolled in programs leading to the Bachelor degrees (BA) in different fields, while 17 ((4.2) %) of them were enrolled for postgraduate studies, namely master degrees in various disciplines. This result indicates that some private colleges in Oman do offer master level study programs in various fields, especially by twinning approach with some

foreign universities, and this was the area of concern by the Oman government with regards to quality assurance and public accountability.

As for the age variable, the largest group of the respondents was the 21-25 year age category (n=191, 41.1 %), followed by the 16-20 year category which accounted for 169 (39.5%) of the respondents. As many as 31 (7.5 %) respondents were between the ages of 26-30 year category, while only 20 (4.9 %) of the students were above 30 year old category. This result also reflects the reality of age-group distribution of students in private colleges and universities in Oman—this situation was also the same as that in the public institutions.

Table 4.2 shows the distribution of responses by 411 college students (respondents) to the survey regarding the quality of their college's/ university's study programs. The survey had 25 items, and responses were scored on a Likert scale of 1 to 5, ranging from 1 (strongly disagree) to 5 (strongly agree), and some questionnaire items were of the negative type. The results in this table were to answer research question 1: *What were the students' perceptions of the quality of study programs and facilities at their college?* In Table 4.2, the figures in parentheses indicate percentages.

Table 4.2: Distribution of Frequency and Percentage of Responses Regarding the Study Programs in Eight Private Colleges in Oman

Item No	Item Description	Response score					Mean Score
		1	2	3	4	5	
1	The workload was not heavy enough	74 (18.0)	102 (24.8)	119 (29.0)	73 (17.8)	43 (10.5)	2.78
2	The program was too theoretical	66	89	118	78	60	2.94

	and abstract	(16.1)	(21.7)	(28.7)	(19.0)	(14.6)	
3	Overall, the quality of the program was satisfactory.	48 (11.7)	70 (17.0)	128 (31.1)	100 (24.3)	65 (15.8)	3.15
4	The choice of modules was limited.	62 (15.1)	94 (22.9)	109 (26.5)	82 (20.0)	64 (15.6)	2.98
5	The program included too little interaction with other disciplines.	55 (13.4)	93 (22.6)	107 (26.0)	80 (19.5)	76 (18.5)	3.07
6	The program met its stated objectives.	37 (9.0)	69 (16.8)	102 (24.8)	114 (27.7)	89 (21.7)	3.36
7	Recent findings/advances were included in the program.	36 (8.8)	71 (17.3)	116 (28.2)	102 (24.8)	86 (20.9)	3.31
8	The lectures on this program motivated students in class.	47 (11.4)	60 (14.6)	92 (22.4)	116 (28.2)	96 (23.4)	3.37
9	There was a lot of pressure on me as a student.	75 (18.2)	83 (20.2)	102 (24.8)	65 (15.8)	86 (20.9)	3.00
10	We were generally given enough time to understand the things we had to learn.	62 (15.1)	82 (20.0)	109 (26.5)	82 (20.0)	76 (18.5)	3.06
11	The lecturers made a real effort to understand difficulties students may be having with their work.	53 (12.9)	70 (17.0)	97 (23.6)	91 (22.1)	100 (24.3)	3.27
12	Lecturers normally gave helpful feedback on how you are doing.	43 (10.5)	68 (16.5)	107 (26.0)	112 (27.3)	81 (19.7)	3.29
13	The lecturers were extremely good at explaining things to us.	46 (11.2)	70 (17.0)	120 (29.2)	81 (19.7)	94 (22.9)	3.26
14	Recommended reference material or text was readily available in the library.	50 (12.2)	94 (22.9)	121 (29.4)	85 (20.7)	61 (14.8)	3.03
15	Access to recommended sites on the internet was easy.	76 (18.5)	90 (21.9)	99 (24.1)	86 (20.9)	60 (14.6)	2.91
16	There were sufficient equipment, computers, etc., for practical activities.	65 (15.8)	91 (22.1)	99 (24.1)	79 (19.2)	77 (18.7)	3.02
17	The program helped me to develop my problem-solving skills.	31 (7.5)	77 (18.7)	126 (30.7)	95 (23.1)	82 (20.0)	3.29
18	The program improved my analytical skills.	34 (8.3)	72 (17.5)	111 (27.0)	107 (26.0)	87 (21.2)	3.34
19	The program helped me to develop my ability as a team member.	26 (6.3)	55 (13.4)	116 (28.2)	111 (27.0)	103 (25.1)	3.34
20	The program helped me to develop my ability to plan my own work.	37 (9.0)	66 (16.1)	113 (27.5)	106 (25.8)	89 (21.7)	3.35

21	The program improved my written communication skills.	39 (9.5)	68 (16.5)	108 (26.3)	96 (23.4)	100 (24.3)	3.36
22	The program improved my oral communication skills.	49 (11.9)	66 (16.1)	101 (24.6)	101 (24.6)	94 (22.9)	3.30
23	The program made me more socially responsible.	39 (9.5)	53 (12.9)	92 (22.4)	109 (26.5)	118 (28.7)	3.52
24	I would recommend others to study the same program at this institution.	61 (14.8)	60 (14.6)	93 (22.6)	95 (23.1)	102 (24.8)	3.28
25	There is a link between the program studied and the real work situation.	51 (12.4)	60 (14.6)	108 (26.3)	92 (22.4)	100 (24.3)	3.31

To facilitate explanation of results and findings, for the Likert scale, the score 1 (strongly disagree) and score 2 (fairly disagree) were regrouped together as ‘disagree,’ whereas score 3 (fairly agree) and score 4 (agree) were regrouped together as ‘agree,’ and score 5 remained as ‘strongly agree’ to show the extreme positive value. Based on the results in Table (4.2), regarding their study workload (item 1), 176 students (42.8 %) disagreed that their study workload was not heavy enough, whereas 192 students (46.8 %) agreed that their study workload was not heavy enough, and 43 students (10.5 %) strongly agreed their workload was not heavy. In general, this result indicates that 56.8 % of the students perceived that the study programs offered at the private colleges in Oman were fairly rigorous and heavy. The result suggests that private colleges in Oman ought to put more rigour and content in the courses of various study programs so that the curriculum has more depth and width and suitable for professional jobs in Oman.

The finding above can be cross-checked with items 9 and 10, which belong in the ‘workload’ rigour category. For item 9 (a lot of pressure on me as a

college student), 158 students (38.4 %) disagreed that they were under pressure (stress) in undergoing their study programs at their college, whereas 167 students (40.6 %) agreed and 86 students (23.4 %) strongly agreed that they were under pressure in following courses at their college. In this case, almost two-fifth (2/5) of the total college students (respondents) experienced little pressure in their studies, and on the other hand, three-fifth (3/5) of the students felt the pressure in their studies. It should be noted here that the amount of pressure (stress) in study should not be equated with study workload or with the high quality expectation. Study pressure varies from one program to the other, or varies according to time, or varies according to student learning capacity.

For item 10, i.e. 'students were given enough time to understand their lessons,' 144 respondents (35.1 %) disagreed, whereas 191 respondents (46.5 %) agreed, and 76 respondents (18.5 %) strongly agreed that they were given enough time to understand what they had learned. This result indicates that most college instructors give sufficient time for students to master their learning materials. The problem with insufficiency of time was mostly due to students taking extra load of courses in order to shorten their study duration, or they had worked part-time to support their life, and of course due to some instructors giving extra many assignments for students to complete. To overcome this problem, tutorial classes were held to guide and speed up learning, and this eventually would upgrade the quality of students.



In the survey, students were asked whether their study programs were ‘too theoretical and abstract,’ i.e. item 2. As many as 155 students (37.8 %) disagreed that their courses were too theoretical and abstract, while 196 students (47.7 %) agreed and 60 students (14.6 %) strongly agreed. This result implies that either most students did not have the required intellectual level, or the instructors gave them less practical-oriented learning materials which the students felt irrelevant. It is to be noted here again that the academic quality of students in private institutions in Oman were lower than those in public institutions. Whatever it is, if the private colleges/ universities in Oman were job-market oriented, then the courses in various study programs should have more practical job-based courses in parallel with the job market demands. The learning curriculum in private institutions should be relevant to human resource demand in the business sector.

Item 2 above was related to items 4, 5, 6, 7, and 25, i.e. concerning curriculum relevancy. For item 4, regarding ‘the choice of modules was limited,’ as many as 156 students (38 %) disagreed with it, whereas 191 students (46.5 %) agreed and 64 students (15.6 %) strongly agreed that the choice of modules was limited. This result implies that three-fifth (3/5) of private colleges in Oman provided a limited number of course modules or learning modules, i.e. there was a lack of sufficient number of courses for a credible, high-standing qualification at diploma, bachelor, and master levels. Or, this also could be due to the lack of liberality or inter-disciplinary offering of courses that gave rise to the lack of sufficient number of course modules.

As for item 5, regarding ‘too little interaction with other disciplines,’ as many as 148 students (36.0 %) disagreed with the statement, whereas 187 students (45.5 %) agreed with it and 76 students (18.5 %) strongly agreed with it. This finding corroborates the previous one, i.e. as in the case for item 4. A majority of students said too little interaction or integration with subjects in other disciplines. The lack of interdisciplinary mode gave rise to compartmentalization or isolation of discipline and the non-flexibility of graduates for employment. In today’s world, graduates with a high chance of employability are those who are flexible and know how to integrate knowledge from several subject matters, especially business, management, law, and information technology.

A rather shocking finding from the survey was regarding item 6, i.e. ‘the study program met its stated objectives.’ Students were not unanimous in their answer. As many as 106 students (25.8 %) disagreed that the study program met its stated objectives. On the other hand, 216 students (52.5 %) agreed and 89 students (21.7 %) strongly agreed that their study programs met its stated objectives. This means that one-quarter of the total number of student respondents stated that their study program failed to fulfil its objectives. In general, however, the private colleges/ universities in Oman had satisfactorily managed to fulfil its contract and curriculum, thus also fairly managed to achieve the quality standard; hence, the private institutions should be commended for their contribution to higher education development in Oman.

As for item 7, regarding 'recent findings/ advances were included in the program,' 107 students (26.1 %) disagreed with the statement, 218 students (53.0 %) agreed and 86 students (20.9 %) strongly agreed. This result implies that in general study programs in private institutions in Oman had courses that included recent knowledge contents. The courses that did not have new contents should be upgraded periodically so as to ensure relevancy.

Another survey item about curriculum relevancy was item 25, i.e. 'there is a link between the program studied and the real work situation.' As many 111 student respondents (27.0 %) disagreed that there was a link between 'what is learnt and what is needed for work.' On the other hand, 200 students (48.7 %) agreed and 100 students (24.3 %) strongly agreed that there was a link between study content and the reality of work. This result shows that three-quarter of the students in private institutions in Oman found that the curriculum was relevant to the job-market demand. However, only one-quarter of the total respondents were dissatisfied with the curriculum relevancy. This result implies that another important aspect of quality assurance that private colleges in Oman should observe was the relevancy of the learning curriculum with work skills and knowledge. This finding suggests that private colleges that suffer from curriculum irrelevancy should collaborate with government agencies, firms, and industries in order to improve their curriculum relevancy, or they should have internship program for on-the-job-training of graduates.

Another important aspect of quality assurance is instructional quality, especially regarding rapport and learning guidance. Items 8, 11, 12, and 13 pertained to this aspect. Item 8 of the student survey was concerned with ‘the lecturers in this program motivated students in class.’ As many as 107 students (26.0 %) disagreed, i.e. the lecturers did not give them motivation in learning. However, 208 students (50.6 %) agreed that their lecturers had given them motivation in learning, and 96 students (23.4 %) strongly agreed with it. Extrinsic motivation such as the vision of a better future of Oman, better socio-economic status, moral support, and praises could be given during instruction process in order to stimulate the persistence and drive for learning difficult courses or acquiring difficult skills. Private colleges/ universities in Oman were also responsible for producing high quality graduates for national development, particularly in the fields of economics, science, and technology; therefore, private colleges should have motivation talks periodically to make students work hard in their studies and to help to create a better Oman society.

Apart from giving motivation, quality lecturers should also be student-friendly, i.e. helping students to comprehend their lessons (item 11). Learning is not about rote-memorising but about understanding of concepts, theories, principles, and their applications. Weak students need a lot of assistance from their teachers. Item 8 of the student survey pertained to the assistance by lecturers. 123 students (29.9 %) said that their lecturers did not help them in understanding lessons, but 188 students (45.7 %) agreed and 100 students (24.3 %) strongly agreed that their lecturers were helpful. In general, 70 % of the students in private institutions in Oman were satisfied with the assistance given

by their lecturers. However, on the other hand, the result also implied that students who were dissatisfied with the lack of assistance by lecturers should be given an alternative, such as tutorial classes. The college managers were responsible for this in order to sustain quality instruction.

Again on lecturers' quality, item 12 pertained to 'lecturers gave helpful feedback' on student progress in courses. As many as 111 students (27.0 %) stated that their lecturers did not give them helpful feedback, 219 students (53.3 %) agreed and 81 students (19.7 %) strongly agreed that their lecturers gave helpful feedback. In general, the result indicated that instructors in private institutions gave progress feedbacks to their students. This result implied that students in private colleges/ universities viewed it as important for their lecturers to give feedback so that they could gauge their lecturers' expectations, and thus they could improve their learning and learn to minimise errors and failures.

Regarding the 'ability of lecturers to explain their lesson well' (item 13), 116 students (28.2 %) disagreed, 201 students (48.9 %) agreed and 94 students (22.9 %) strongly agreed that lecturers could explain their lessons well. Again the pattern of dissatisfaction or disagreement was the same as items 11 and 12. This result implied that a group of at least 100 students were dissatisfied with the quality and attitude of their lecturers. The result also implied that colleges should get well-trained lecturers on pedagogy to teach various courses. On the other hand, however, generally most students were satisfied with the quality of their lecturers' instruction.

The quality of learning facilities at private colleges in Oman was portrayed by survey items 14, 15, and 16. Regarding the easy availability of reference materials and textbooks (item 14), 144 students (35.1 %) disagreed that their colleges had a good resource centre or library that provided ample reference materials and textbooks. On the other hand, 206 students (50.1 %) agreed and 61 (14.8 %) strongly agreed that their college provided ample reference materials and textbooks. In general, this result showed that two-third of the students in private institutions was satisfied with reference materials. On the other hand, however, the result also implied that more than one-third of the total respondents were not satisfied with their library holdings. Hence, private colleges in Oman should have an ample stock of reference materials for the students to do their assignments and research projects. This could also mean that a high-standing college should have sufficient library facilities and technology, because the quality of graduates directly depended on the acquisition of new knowledge and information available from the library and internet sources.

Apart from the library, 'easy access to relevant websites in the internet' (item 15) was another item pertaining to quality assurance of a college. The various websites constituted an important e-learning tool or self-access learning medium. As many as 166 students (40.4 %) disagreed that their college provides easy access to the internet, while 185 students (45.0 %) agreed and 60 students (14.6 %) strongly agreed that their college provides easy access to the internet. This item had the highest percentage of disagreement from students in private

institutions, and hence, this result indicated that at least two-fifth (2/5) of the respondents was disappointed with the ICT (information communication technology) facilities at their college.

As for the 'sufficiency of various equipment and computers' available at their college/ university, 156 students (37.9 %) stated that their college/ university did not have sufficient equipment and computers for practical lessons. In addition, 178 students (43.3 %) agreed and 77 students (18.7 %) strongly agreed that their college/ university provided sufficient equipment and computers for learning. The result implied that three-fifth (3/5) of the students in private institutions in Oman was satisfied with the necessary equipment needed for practical lessons, while two-fifth was not satisfied. In this regard, private institutions should observe that they were responsible for providing the required equipment in the training of professional and technical human resources.

The effectiveness of a college in delivering its educational programs and services could be assessed on the basis of learning outcomes. Students' academic performance is one of the important indicators of a college's performance and quality. Items 17 until 23 pertained to learning outcomes. For the survey item 17, students were asked whether 'the program helped me to develop my problem-solving skills.' As many as 108 students (26.2 %) disagreed that the study program helped them to develop their problem solving skills. On the other hand, 221 students (53.8 %) agreed and 82 (20.0 %) strongly agreed that the study programs at their private college/ university was able to develop their problem-

solving skills. This finding implied most students were satisfied with the problem-solving skills they acquired in their study programs. However, one-quarter of the students said that the private colleges/ universities in Oman ought to emphasize on problem-solving skills in order to produce critical, logical, and analytical thinking skills among graduates. This was because the quality of students could also be judged by their ability to thinking and problem-solving skills.

Item 18 pertains to ‘the program improves my analytical skill.’ As many as 106 students (26.2 %) said that their program did not develop their analytical skill, whereas 217 students (53.0 %) agreed that their study program had improved their analytical skill and 87 students (21.2 %) strongly agreed with it. This result implied that a majority of students stated that they had acquired analytical skill through their study programs in the private institutions. However, one-quarter of them said that they did not acquire that skill, and this could mean that the private college/ university or the students themselves failed to develop analytical skill, an important skill in professional level jobs. This learning outcome constituted an element of quality indicator in terms of thinking skill.

With regard to the relevancy of study program to job, as many as 81 students (19.7 %) disagreed that their study programs had ‘developed their ability as a team member’ in an organization (item 19), but 227 students (55.2 %) agreed and 103 (25.1 %) strongly agreed that their program had been successful in developing team membership. This result implied that overall some private



colleges/ universities in Oman had emphasized in training students on being a team player and team member in business organizations.

Again on relevancy with job, item 20 pertained to 'the program has developed their ability to plan own work,' and 103 students (25.1 %) disagreed that their college had developed this ability; but 219 students (53.3 %) agreed and 89 students (21.7 %) strongly agreed that their college had helped to develop their ability to plan their work. In general, this result implied that three-quarter of the students in private colleges/ universities indicated that their study programs had trained them with the ability to plan their own job after graduation. This indicated that a majority of students in private institutions affirmed the relevancy of study programs with future employment.

About change of personal characteristic (as a learning outcome), items 21, 22, and 23 dealt with communication and social interaction. The general pattern of responses for these items was 25 % disagreed, 49 % agreed and 26 % strongly agreed that the study program had developed students' written communication skill, oral communication skill, and sense of social responsibility. This result implied that some private colleges/ universities in Oman had incorporated personality development as part of quality assurance into their curriculum. However, one-quarter of the students denied this aspect.

When asked about the quality of study programs in their college in general (item 3), as many as 118 students (28.7 %) said that their programs were

unsatisfactory in terms of their quality, but 228 students (55.4 %) said satisfactory and 65 students (15.8 %) said highly satisfactory. Cross-checking with another similar item (item 24), i.e. recommend others to study the same program at their college, 121 students (29.4 %) disagreed to do that, and 188 students (45.7 %) agreed and 102 students (24.8 %) strongly agreed to recommend others to do so. The percentage on ‘disagreement’ for the two items was about 29 %. This result implied that about three-quarter of the students was satisfied the quality of study programs. However, more than one-quarter (1/4) of the total students in private institutions in Oman felt that their college/ university did not provide satisfactory or quality study programs. This issue should be addressed by the relevant Ministry in order to ensure that all private colleges should provide a high standard education and training programs for the youth.

Results in Table 4.2 were regrouped according to six categories, as portrayed in Table 4.3 below, to summarize the results and examine the general pattern of the overall score and mean score of the six categories on the quality of study programs as perceived by college students.

Table 4.3: The Average Score and Average Mean Score of Items Regrouped into Six Categories

Item Group	Likert Scale Score (Average Frequency & Percentage)					Average Mean Score
	1	2	3	4	5	
Students' light workload (Items 1, 9, 10)	70 (17.0)	89 (21.7)	110 (26.8)	74 (18.0)	68 (16.5)	2.95
Lecturer-student	47	67	104	100	93	3.29

rapport & assistance (Items 8, 11, 12, 13)	(11.4)	(16.3)	(25.4)	(24.3)	(22.6)	
Ample learning Facilities (Items 14, 15, 16)	64 (15.6)	92 (22.4)	106 (25.8)	83 (20.2)	66 (16.1)	2.98
High Learning Outcomes (Items 17, 18, 19, 20, 21, 22, 23)	36 (8.8)	65 (15.8)	110 (26.8)	104 (25.3)	96 (23.3)	3.38
Quality of Program in General (Items 3, 24)	55 (13.4)	64 (15.6)	111 (27.0)	98 (23.8)	83 (20.2)	3.22
Relevancy of the Curriculum with work (Items 2, 4, 5, 6, 7, 25)	51 (12.4)	79 (19.2)	110 (26.8)	92 (22.4)	79 (19.2)	3.16

Based on the results in Table 4.2 above, it could be observed that the mean score for all six dimensions fell in the range of 'fairly agree', i.e. between the average mean score of 2.5-3.49, and not in the range of 'agree.' This result implied that the quality of private colleges in six dimensions was 'fairly satisfactory', and thus this denoted that private colleges in Oman have a lot to do for elevating their quality standard. Apparently, the two unfavourable dimensions as perceived by students were that the study program workload was light and not rigorous, and that there were insufficient learning facilities (such as computer, reference materials, internet outlets) in some private colleges in Oman. With respect to these two issues, the Ministry concerned should play a monitoring role and urge the private colleges to improve further for achieving quality assurance standards.

### **4.3: The Main Factors and Their Interrelations in the Student QA Assessment Model**

The analysis in this section pertains to research question 2, i.e. 'Based on students' survey responses, what are the main factors to be considered and their interrelations in the QA assessment model for private higher education institutions in Oman?

#### **4.3.1: Reliability Assessment**

The internal consistency reliability was acceptable for the model measurement. According to Hair et al. (1998), a minimum value of 0.70 for the alpha coefficient was necessary for any meaningful interpretation of the items. After assessing the measurement model, and its appropriateness, the researcher decided to proceed to assess the reliability of the items and summated variables. As discussed earlier, the reliability is the extent to which the variables measure consistently what they are intended to measure', and according to Hair et al. (1998), a high reliability coefficient shows that the items measuring the same factor are highly inter-correlated. The results of the reliability of the items as summarized in Table 4.4 next page indicate that the items satisfied the fundamental requirement of sound psychometric, and are, consequently, apt to be used for any analysis. In turn, this reliability encourages the researcher to proceed with the research project (Hair et al.1998, P.90).

Table 4.4: Items' Reliability

Item	Items	Correlation	Cronbach's Alpha
Item1	1. The workload was not heavy enough	.314	0.894
Item2	2. The program was too theoretical and abstract	.295	.894
Item3	3. Overall, the quality of the program was satisfactory.	.501	.892
Item4	4. The choice of modules was limited.	.398	.893
Item5	5. The program included too little interaction with other disciplines.	.368	.893
Item6	6. The program met its stated objectives.	.573	.891
Item7	7. Recent findings/advances were included in the program.	.443	.892
Item8	8. The lectures on this program motivated students in class.	.534	.891
Item9	9. There was a lot of pressure on me as a student.	.078	.897
Item10	10. We were generally given enough time to understand the things we had to learn.	.525	.891
Item11	11. The lecturers made a real effort to understand difficulties students may be having with their work.	.665	.890
Item12	12. Lecturers normally gave helpful feedback on how you are doing.	.572	.891
Item13	13. The lecturers were extremely good at explaining things to us.	.592	.890
Item14	14. Recommended reference material or text was readily available in the library.	.482	.892
Item15	15. Access to recommended sites on the internet was easy.	.474	.892
Item16	16. There were sufficient equipment, computers, etc., for practical.	.425	.892
Item17	17. The program helped me to develop my problem-solving skills.	.622	.890
Item18	18. The program improved my analytical skills.	.715	.889
Item19	19. The program helped me to develop my ability as a team member.	.721	.890
Item20	20. The program helped me to develop my ability to plan my own work.	.730	.889
Item21	21. The program improved my written communication skills.	.630	.890
Item22	22. The program improved my oral communication skills.	.668	.890
Item23	23. The program made me more socially responsible.	.616	.890
Item24	24. I would recommend others to study the same program at this institution.	.688	.889
Item25	25. There is a link between the program studied and the real work situation.	.625	.890
Personal development		.873	.904

Experience	.761	.886
General evaluation	.583	.888
Program evaluation	.375	.894

#### 4.3.2: Test of Assumptions

The multivariate analysis has many fundamental assumptions that must be fulfilled before the analysis can be meaningfully interpreted (Hair et al., 1998). These assumptions are (a) independent observations, (b) random sampling of respondents, (c) linearity and (d) normality.

Tabachnick and Fidell (2001), moreover, assert that when the assumptions are met, the residuals of analysis are also normally distributed and independent. The multivariate normality is the assumption that each variable and all their potential linear combinations are normally distributed (Tabachnick and Fidell, 2001). The normality of a variable is generally assessed through two major components, which are skewness and kurtosis. Skewness refers to the symmetry of the distribution. Unlike a variable in a normal distribution, a skewed variable is a variable whose mean is twisted to the right or left rather than being in the centre of distribution. On the other hand, Kurtosis means the peakedness of a distribution; a distribution is either too peaked (with short, thick tails) or too flat (with long, thin tails) (Tabachnick & Fidell, 2001).

Both Skewness and Kurtosis were examined, and the results showed that over 90% of the data met the requirement. It was found that both Skewness and Kurtosis generally ranged between +1 and -1 (Schumacker and Lomax, 1996). The plots also revealed that the departures from normality were not so extreme and the scores clustered along a straight line, indicating normal distributions of scores.

When further examination was conducted using the Kolmogorov-Smirnov Test, the results indicated that the test was statistically insignificant ( $p > .05$ ) except for minor cases, while  $p < .05$ , suggesting, thus, that the normality assumption holds. Furthermore, the Shapiro-Wilk Test also supported the assumption of normality. Based on these results, it could be concluded that the normality assumptions were tenable, and the parametric data analyses were justifiable.

On the other hand, the linearity assumption means that there is a straight-line relationship between two variables. Linearity is very important in a practical sense because the Pearson's correlation coefficient 'r' only captures the linear relationship (Tabachnick & Fidell, 2001). According to Schumacker and Lomax (1996), the extent to which one or both variables deviate from the assumption of a linear relationship will affect the size of the correlation coefficient. The researcher had conducted a series of multiple regressions, using a studentized (SRED) residual plot against each of the predicted dependent variables to examine the linearity. Visual inspection of the residual plots showed that the scores were scattered randomly with no distinct pattern, thus, suggesting that this

assumption was reasonably met. Finally, the lack of evidence of serious violations of the assumptions provided justification for the researcher to continue with the Structural Equation Modeling (SEM) and then answer the research questions as mentioned in Chapter One.

The researcher conducted the Principal Component Analysis (PCA) to ensure that the hypothesized factors were maintained and items were significantly loaded on their respective factors. The results of the analysis showed the items were loaded on their respective factors. After the satisfactory factors were obtained as hypothesized, the researcher carried out a measurement model. The reason for performing the measurement model was twofold. In the first place, it was meant to verify the proposed structure, and, secondly, to explore the validity and reliability of the construct.

Unlike the Exploratory Factor Analysis (EFA), the measurement model allows a total control of which variables describe the factor (Hair et al., 1998; Stevens, 1996). Thus, the researcher has assigned variables that described the constructs based on the result of the Principal Component Analysis (PCA). The Confirmatory Analysis supported the accuracy of the measurement model, allowing thus the researcher to proceed to the structural model. Consequently, the measurement model highly represented the latent construct as it appeared in the assessment of the model fit.



### 4.3.3 Results of Principal Component Analysis

The researcher conducted another Principal Component Analysis (PCA) on the final collected data. The Principal Component Analysis was performed to determine which, if any, antecedent variables form coherent, relatively independent subsets. No theoretical or empirical rationale has been established for specifying a particular structure for this type of data. Therefore, an exploratory PCA was undertaken to identify the structure having the greatest interpretability.

The Principal Component Analysis (PCA), as previously indicated in Chapter Three, is the method of choice when the goal is an empirical summary of the data with the specific objective of reducing the number of variables to smaller numbers of components including errors and unique variance for each observed variable (duplicating exactly the observed correlation matrix and the standard scores of the observed variables –if all the components are retained (Shields, Jr, 1999).

The Principal Component Analysis (PCA) extracts maximum variance from a data set with a few orthogonal components and produces a unique mathematical solution. Each component is orthogonal to all other components, a characteristic that greatly facilitates the interpretation of results and their use in any other analyses (Tabachnick & Fidell, 2001). For this study, the identification

of subsets (component, or factors) of the antecedent items was considered to be of greater importance than was parsimony.

The use of the PCA for the data on the antecedent items was supported. Bartlett's test of sphericity was significant ( $X^2 = 747.415$ ,  $p < .001$ ), indicating that the coefficients in the correlation matrix were different from zero and, as such, were not likely to have occurred as a function of chance. Furthermore, the total matrix sampling adequacy of all antecedent items, an index of the extent to which the matrix of partial and multiple correlation coefficients conforms to zero partials and large multiple  $r$ s, was found to be more satisfactory (.656). A common standard is for this value to be greater than .500; however, Tabachnick & Fidell (2001) argue for a higher standard of .600. In addition, the sampling adequacy for individual antecedent items exceeded .500 for two variables, while all the remaining variables exceeded .600.

The roots-greater-than-one criterion retains as many components whose eigenvalues are greater than or equal to one. This procedure extracted four components or factors from 24 antecedent variables. Variables jeopardizing the pursuit of a relatively simple structure by substantial loadings on more than one factor were closely examined; and subsequently, six items were dropped from the PCA, they are item 1, 2, 3, 6, 7, and 16.

A critical decision is selecting how many factors or components to retain, a decision influenced by the number of substantial loadings per component. If the primary purpose is to summarize the data set, a minimum of

three substantial loadings per factor is deemed sufficient (Shields, 1999). It is noteworthy that both the orthogonal and oblique rotations yielded similar transformed results, but the orthogonal rotation was selected as more appropriate for the final solution after examination of the component plots for both rotations. Also, in the orthogonal rotation, the components were not correlated, thereby facilitating the description and interpretation of the results.

On the whole, this method is in line with the assumption that the underlying constructs were theoretically related, supporting thus the need to get the simplest factor structure (Tabachnick & Fidell, 1996). The items were assigned to factors based on the highest loadings. The minimum acceptable item loading for this study was 0.50. This implies that only those factors with .50 and above were retained. The interpretability of the extracted factors was used to decide on the number of dimensions to be maintained. Unlike the pilot study where only sixteen items loaded significantly, eighteen out of 24 items loaded substantially on 4 separate factors, and the factors proved to be interpretable. The researcher did not include any factor with eigenvalues less than 1.0 and the proportion of the variance accounted for is (73%). The degree of intercorrelation among the items has turned out to be at an acceptable level, for the Bartlett's Test of Sphericity was statistically significant at  $X(747.415)$ ,  $KMO = .869$ ,  $P = 0.001$ .

The four-factor matrix obtained from the Principal Components Analysis had a varimax rotation accounting for 59.24% of the variance in the private institutions' evaluation items. The first factor consisted of 8 items; these items

loadings exceeding .50 and explained 37.72% of the variance. The items were all describing the contribution of the program into personal development of the students such as ability to plan, communicate both in oral and written form and social responsibility. Thus, the factor was labelled **Personal Development (PD)**.

The second factor included 5 items with loadings exceeding 0.50, and accounted for 8.86% of the variance. These items clearly describe the students' experience and motivation during the program process and this factor was called **Experience (E)**.

The third factor comprised 3 items with two highly loaded items (.51-.80) and all accounted for 6.37% of the variance. The items appear to evaluate some aspects of the program such as objectives, program advancement, and the facilities of the institution including the availability of the library and internet services, as well as the reality of the program. The factor was named **General Evaluation (GE)**

The fourth and the last factor contained 3 items also with loadings exceeding .60, which together explained 6.9% of the variance. The main elements emphasized in these items included aspects of evaluation of both the program and its delivery, i.e., the lecturers. The factor was simply labelled **Program Evaluation (PE)**.

Interestingly, the result of the Principal Component Analysis (PCA) for the final collected data was reasonably better than the result of the pilot study data. This indicated that the final data were more reliable and valid with possible reflections of the quality of the collected data. As Table 4.5 below indicates the betterment of the final collected data was seen through length of the remaining items, significance of loading and high eigen values of the factors. Moreover, the communalities of the remaining items were generally above the suggested figure. According to the researchers (Hair et al., 1998), the communality of meaningful items is recommended to be at a minimum level of .50.

Table 4.5: Summary of items' communalities

No	Items	Communality
4	The choice of modules was limited.	0.56
5	The program included too little interaction with other disciplines.	0.61
8	The lectures on this program motivated students in class.	0.51
9	There was a lot of pressure on me as a student.	0.55
10	We were generally given enough time to understand the things we had to learn.	0.59
11	The lecturers made a real effort to understand difficulties students may be having with their work.	0.67
12	Lecturers normally gave helpful feedback on how you are doing.	0.63
13	The lecturers were extremely good at explaining things to us.	0.51
14	Recommended reference material or text was readily available in the library.	0.67

15	Access to recommended sites on the internet was easy.	0.70
17	The program helped me to develop my problem-solving skills.	0.54
18	The program improved my analytical skills.	0.65
19	The program helped me to develop my ability as a team member.	0.61
20	The program helped me to develop my ability to plan my own work.	0.61
22	The program improved my oral communication skills.	0.51
23	The program made me more socially responsible.	0.61
24	I would recommend others to study the same program at this institution.	0.62
25	There is a link between the program studied and the real work situation.	0.50

#### 4.3.4 Measurement Model Assessment

The main purpose of conducting the measurement model on the collected data was to assess the appropriateness of the model. In other words, it aspires to establish that the measurement model holds overall. The two-step model building approach is recommended by Anderson, Gerbing, Joreskog, and Sorbom (1988). The first part is an analysis of the measurement model, which specifies the relationships between the observed variables (items) and latent variables or factors.

The measurement model was run on some of the Omani private institutions of higher education using Moment Structure (AMOS; Version 4.0)

which is regarded as a user-friendly program (Arbuckle and Wothke, 1995-1999). This construct contains the four distinctive factors extracted from the PCA analysis; they are Personal Development (PD), Experience (E), General Evaluation (GE) and Program Evaluation (PE). Then Maximum Likelihood method was used to assess the overall fitness of the model.

The result of the measurement model for the Omani private institutions of higher education suggests that the model was fit with Chi-Square 444.112, df 141,  $p = .001$ , GFI (.95), AGFI (.92), IFI (.96), TLI (.95), CFI (.96) and RMSEA (.06). The value of CMIN/DF was also 3.1 which indicated that the measurement model was adequately fit since the figure fell below the maximum recommended value of 5. These indices support the argument that the model was well fit.

The results of this analysis revealed that the measurement properties (reliabilities and validities) of the observed and latent variables were at acceptable levels. There were four factors retrieved from the result of Principal Component Analysis (PCA).

The steps discussed by Burne (1998) were employed in this study to assess the adequacy of the model and to detect any sources of mis-estimation in the model. The steps include:

- a. The adequacy of the parameter estimates is emphasized, including the adequacy of the measurement model. This can be determined by (a) the squared multiple correlations reported for each observed variable which is an indication of item reliability with respect to its underlying latent construct and (b) the

coefficient of determination reported for all the observed variables jointly, which is an indication of composite reliability for the individual measurement. These values range from 0 to 1.00; and the closer the values to 1.00 the better the model.

b. The adequacy of the model as a whole must be appropriate. It is recommended that the assessment of the model adequacy be based on various goodnesses-of-fit criteria that take into account theoretical, statistical and practical considerations. Multiple criteria were used to evaluate the adequacy of the model fit, namely the Normed Chi-square, the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI) and the Adjusted Goodness of Fit Index (AGFI). All of these criteria were adopted in constructing the measurement and structural models. Each of the indices is an assessment of fit between the model and sample data (Burne, 1998).

The model was measured, using the friendly-user program (AMOS, Version 4.0) (Arbuckle & Wothke, 1995-1999). The above-mentioned indicators were taken into consideration to determine the fitness of the model. One indicator is the Chi-square, which means when the Chi-square value is at zero the model fitness is obtained from a non-significant Chi-square. In other words, a large chi-square value is an indication that the observed covariance matrices are far from equal to the estimated covariance matrix (Bolton & Long, 1993). Thus, a well-fitted model would be derived from a non-significant Chi-square.



However, due to the sensitivity of Chi-square to the sample size, practitioners have suggested multiple indicators and indices for model fit assessment. One other limitation of the Chi-square in assessing model fit is that it is only a test for statistical significance; it does not provide any precise information about the degree of goodness of the model fit (Bolton & Long, 1993). Hair et al. (1998) believe that statistical non-significance does not mean that the correct model has been achieved but rather that the suggested model fits the observed covariance and correlation well. Due to these shortcomings of the Chi-square, statisticians and practitioners advise researchers to use other indicators or indices to evaluate the model fit (Hair et al., 1998). These include multiple indicators indices such as (GFI, AGFI, IFI, TLI, CFI, RMSEA, to name only a few.

#### 4.3.5 The Model Goodness of Fit

The results of the model for the Omani private institutions of higher education show the following: The Chi-square 444.112, df 141 P = 001. The goodness of fit index (GFI) indicates how well the theoretical model reproduces the observed correlations. The GFI was (.93), and all the other indicators and indices in this study revealed that the model was appropriate or acceptable. For a model to be acceptable, the Goodness of fit Index (GFI) should be equal to or greater than .90. The Adjusted Goodness of Fit Index (AGFI) for the model in focus was (.90), conventionally, if AGFI is greater 1.0, it is associated with models with perfect

fit. On the other hand if it is less than 0, it is extremely associated with models with poor fit, or based on small sample sizes. The AGFI should at least be .90.

The IFI for the measurement model in this study is (.95), TLI (.94), the Comparative Fit Index (CFI) was (.95) and the Root Mean Square Error of Approximation (RMSEA) (.68). The comparative fit index (CFI) shows how well the model fits the data compared to a null model that represents no relationships among the variables, and RMSEA are among the measures least affected by the sample size. RMSEA is an estimate of the mean difference between the observed and reproduced correlations; an acceptable fit requires a value of less than (0.08). The value of the CMIN/ df was 3.3, which showed that the measurement model was adequately fit since the CMIN/ df value fell below the maximum recommended value of 5. Therefore, the above-mentioned results indicate that the model is fit. Overall, it is strongly recommended that each of the indices of the measurement model be above .90, to indicate a perfect or acceptable model. In simple terms, these statistical findings summarized in Table 4.6 below suggest that the construct validity of the model is fit and that the items measure what they are intended to measure. The result, therefore, lends strong support to what has been concluded from Principal Component Analysis (PCA), that the items were psychometrically sound to be used for any inferential statistics without any problem.

Table 4. 6: Summary Statistics of the Model -Fit Measurement

Model	Chi-square	DF	GFI	AGFI	IFI	TLI	NFI	CFI	RMSEA
1	444.112	141	.93	.90	.95	.94	.93	.95	.07

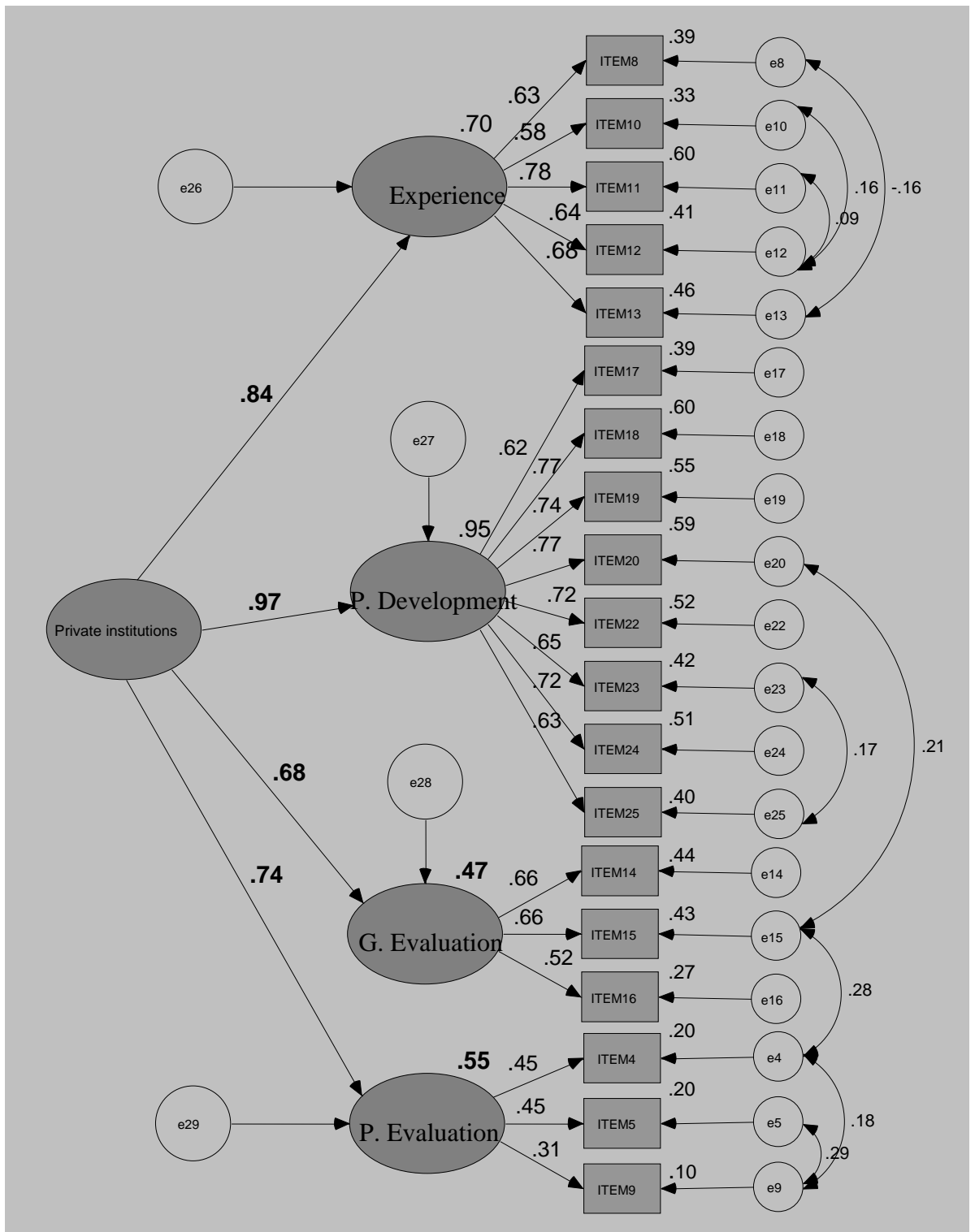


Figure 4. 1: Student QA Assessment Model for Oman's Private Institutions of Higher Education

#### 4.3.6 Manova

The multivariate analysis was employed to answer some of the research questions the present study aspires to address. More specifically, the researcher used this method to examine the possibility of differences in the perception between the factors of the Omani private higher institution across demographic variables such as gender, age and specialization. This method was used mainly to compare means differences of more than two independent variables; and dependent variables.

The researcher chose to use MANOVA because the method has an enormous ability to deal with many dependent variables simultaneously. Analyzing many dependent variables in this manner would enable the researcher to control the inflation of the error rate, as this rate inevitably increases when a set of separate univariate analyses are conducted (Hair et al, 1998). Moreover, MANOVA is also more powerful than separate univariate (ANOVA) tests in detecting the differences among the variables, because conducting a multivariate analysis of variance would give the opportunity to identify any latent differences among the variables which otherwise may not be detectable (Hair et al., 1998).

The first step in the Multivariate (MANOVA) analysis is to test the assumption of equality of variances and normality of data. However, since the normality assumption was tested before the analysis of measurement model, the researcher did not perform the test again. Instead Levene's Test was applied for further assumption. Levene's Test revealed the insignificance of the test,  $p > .05$

(see Table 4.7). This insignificance of the test indicated that the null hypothesis of equal variances was maintained.

Table 4.7: Levene's test of equality of error variances

Variables	F	Df	Sig
Personal Development	2.512	130	.276
Experience Delivery	1.913	130	.450
General Evaluation	2.840	130	.521
Program Evaluation	2.603	130	.053

The table of factorial MANOVA is presented in Table 4.7. Results of the analysis revealed that there was an overall significant multivariate model on four factors of the private institution of higher education subscales on one hand and gender, college, course and age on the other hand. The results were as follows:

Gender: Hotelling's  $t = .712$ ,  $F(12, 725) = 2.706$ ,  $p = .001$ ,

Course: Hotelling's  $t = .209$ ,  $F(24, 966.000) = 2.101$ ,  $p = .002$ ,

College: Hotelling's  $t = .361$ ,  $F(32.000, 966.000) = 2.725$ ,  $p = .001$ ,

Age: Hotelling's  $t = .126$ ,  $F(12, 7(25.0)00) = 2.546$ ,  $p = .003$

However, the study found that the overall multivariate for sponsor was statistically insignificant,

Sponsor: Hotelling's  $t = .007$ ,  $F(4.000, 243.000) = .448$ ,  $p = .77$ .

Moreover, the interaction effect of college and gender, college and course and gender and course were statistically significant, Hotelling's  $t = .222$ ,  $F(28.000, 966.000) = 1.913$ ,  $p = .004$ , Hotelling's  $t = .254$ ,  $F(32.000, 966.000) = 1.914$ ,  $p = .002$ , Hotelling's  $t = .127$ ,  $F(8.000, 484.000) = 2.546$ ,  $p = .003$  respectively.

Furthermore, the interaction among college, gender and course, course and age, gender, course and age and college, gender and sponsor were also found statistically significant Hotelling's  $t = .118$ ,  $F(16.000, 966.000) = 1.77$ ,  $p = .030$ , Hotelling's  $t = 12.00$ ,  $F(12.000, 7(25.0)00) = 2.546$ ,  $p = .001$ , Hotelling's  $t = .048$ ,  $F(4.000, 243.000) = 2.913$ ,  $p = .022$ , Hotelling's  $t = .097$ ,  $F(12.000, 7(25.0)00) = 1.947$ ,  $p = .026$ . On the other hand, the interaction between and among college and age Hotelling's  $t = .286$ ,  $F(56.000, 966.000) = 1.232$ ,  $p = .122$ , gender and age, Hotelling's  $t = .026$ ,  $F(8.000, 484.000) = .791$ ,  $p = .611$ , college, gender and age Hotelling's  $t = .080$ ,  $F(16.000, 966.000) = 2.213$ ,  $p = .251$ , college, course and age Hotelling's  $t = .030$ ,  $F(12.000, 7(25.0)00) = .602$ ,  $p = .842$ , college, gender, course and age Hotelling's  $t = .001$ ,  $F(.001, 2.000) = .001$ ,  $p = 1.00$ , college and sponsor Hotelling's  $t = .123$ ,  $F(28.000, 966.000) = 1.063$ ,  $p = .377$ , gender and sponsor Hotelling's  $t = .004$ ,  $F(4.000, 243.000) = .253$ ,  $p = .908$ , course and sponsor Hotelling's  $t = .020$ ,  $F(12.000, 7(25.0)00) = .407$ ,  $p = .961$ , college, course and sponsor Hotelling's  $t = .108$ ,  $F(20.000, 966.000) = 1.300$ ,  $p = .169$ , gender, course and sponsor Hotelling's  $t = .001$ ,  $F(.001, 2.00) = .001$ ,  $p = 1.00$ , college, gender, course and sponsor Hotelling's  $t = .001$ ,  $F(.001, 2.00) = .001$ ,  $p = 1.00$ , age and sponsor Hotelling's  $t = .024$ ,  $F(12.000, 725) = .474$ ,  $p = .930$ , college, age and sponsor Hotelling's  $t = .066$ ,  $F(12.000, 725) = 1.325$ ,  $p = .199$ , gender, age and sponsor Hotelling's  $t = .001$ ,  $F(.001, 2.00) = .001$ ,  $p = 1.00$ , college, gender, age, and sponsor Hotelling's  $t = .001$ ,  $F(.001, 2.00) = .001$ ,  $p = 1.00$ , course, age, and sponsor Hotelling's  $t = .029$ ,  $F(8.000, 484.000) = .874$ ,  $p = .538$ , college, course, age and sponsor Hotelling's  $t = .009$ ,  $F(4.000, 243.000) = .562$ ,  $p = .691$ , gender, course, age and sponsor Hotelling's  $t = .001$ ,  $F(.001, 2.00) = .001$ ,  $p = 1.00$  and college, gender, course, age and sponsor Hotelling's  $t = .001$ ,

$F(.001, 2.00) = 001, p= 1.00$ . Table 4.8 offers a detailed summary of the MANOVA analysis.

Table 4.8: Summary of factorial MANOVA (subscales according to gender, age, sponsor and specialization) for the Omani private institutions of higher education

<b>Variables</b>	<b>Hotelling's t</b>	<b>F</b>	<b>P</b>
Intercept	9.926	603.005	.001
College	.361	2.725	.001
Gender	.712	2.706	.001
Course	.209	2.101	.002
Age	.126	2.535	.003
Sponsor	.007	.448	.774
College + Gender	.020	.618	.862
College + Course	.027	.827	.648
Gender + Course	.048	1.465	.167
College + Gender + Course	.118	1.777	.030
College + Age	.286	1.232	.122
Gender + Age	.026	.791	.611
College + Gender + Age	.080	1.213	.251
Course + Age	.189	3.808	.001
College+ Course + Age	.030	.602	.842
Gender + Course + Age	.048	2.913	.022
College + Gender + Course + Age	.001	.001	1.00
College + Sponsor	.123	1.063	.377
Gender + Sponsor	.004	.253	.908
College + Gender + Sponsor	.097	1.947	.026
Course + Sponsor	.020	.407	.961
College + Course + Sponsor	.108	1.300	.169
Gender + Course + Sponsor	.001	.001	1.000
College+ Gender+ Course + Sponsor	.001	.001	1.000
Age + Sponsor	.024	.474	.930
College + Age + sponsor	.066	1.325	.199
Gender + Age + sponsor	.001	.001	1.000
College + Gender + Age + Sponsor	.001	.001	1.000
Course + Age + sponsor	.029	.874	.538
College + Course + Age + Sponsor	.009	.562	.691
Gender + Course + Age + Sponsor	.001	.001	1.000
College + Gender + Course + Sponsor	.001	.001	1.000

Based on the result of the MANOVA analysis, tests of between-subject effects (Univariate) were examined. The univariate results revealed that there

were overall effects (Univariate) of gender, college, course, age and sponsor on the subscales of the private institution of higher education in Oman (see Table 4.8). It was found significant for the four factors:

Personal Development:  $F(130, 246) = 2.322$   $p = .001$ ,  $MSE = 35.390$ ;

Experience:  $F(130, 246) = 2.388$   $p = .001$ ,  $MSE = 35.390$ ,

General Evaluation:  $F(130, 246) = 2.348$   $p = .001$ ,  $MSE = 35.390$ ,

Program Evaluation:  $F(130, 246) = 1.924$   $p = .001$ ,  $MSE = 35.390$ .

This result suggested that there was a relationship between these independent variables (gender, college, course, age, and sponsor) and dependent variables (personal development, experience, general evaluation and program evaluation factors). It was from this perspective that the significance of the correlated model required analyses and interpretation of univariate analysis for these factors separately.

The results of the univariate analyses found college significant for personal development, experience, general evaluation and program evaluation respectively

$F(8, 246) = 2.861$   $p = .005$ ,  $MSE = 35.390$ ,

$F(8, 246) = 4.479$   $p = .001$ ,  $MSE = 14.149$ ,

$F(8, 246) = 2.861$   $p = .005$ ,  $MSE = 35.390$ ,

$F(8, 246) = 3.250$   $p = .002$ ,  $MSE = 4.874$ ,

$F(8, 246) = 3.250$   $p = .002$ ,  $MSE = 4.874$ ,

$F(8, 246) = 1.863$   $p = .006$ ,  $MSE = 35.390$ .



It was also found significant for gender, personal development, experience, general evaluation and program evaluation respectively

$$F(3, 246) = 17.602 \text{ } p = .001, \text{ MSE} = 35.390,$$

$$F(3, 246) = 14.994 \text{ } p = .001, \text{ MSE} = 14.142,$$

$$F(3, 246) = 15.996 \text{ } p = .001, \text{ MSE} = 4.874,$$

$$F(3, 246) = 7.703 \text{ } p = .001, \text{ MSE} = 4.945.$$

Interestingly, course was also found statistically significant across these factors:  $F(6, 246) = 2.902 \text{ } p = .009, \text{ MSE} = 35.390$  for personal development,  $F(6, 246) = 32.873 \text{ } p = .034, \text{ MSE} = 14.142$  for experience;  $F(6, 246) = 25.739 \text{ } p = .001, \text{ MSE} = 4.874$  for general evaluation; and  $F(6, 246) = 2.275 \text{ } p = .026, \text{ MSE} = 14.142$  for program evaluation and age  $F(3, 246) = 2.275 \text{ } p = .026, \text{ MSE} = 35.390$  for personal development,  $F(3, 246) = 1.843 \text{ } p = .007, \text{ MSE} = 14.142$  for experience,  $F(3, 246) = 6.704 \text{ } p = .001, \text{ MSE} = 4.874$  for general evaluation and  $F(3, 246) = 6.704 \text{ } p = .001, \text{ MSE} = 4.945$  for program evaluation were statistically significant.

These results suggest that the demographic data have relationship with the factors extracted from the PCA (personal development, experience, general evaluation and program evaluation). However, the univariate analyses found sponsor statistically insignificant. For personal development,  $F(1, 246) = .189 \text{ } p = .664, \text{ MSE} = 35.390$ , for experience,  $F(1, 246) = .479 \text{ } p = .479, \text{ MSE} = 14.192$ , for general evaluation,  $F(1, 246) = .010 \text{ } p = .919, \text{ MSE} = 4.874$ , for program evaluation,  $F(1, 246) = .123 \text{ } p = .727, \text{ MSE} = 4.945$  which indicated that there is

no relationship between the independent variable 'sponsor' and the dependent variables.

#### 4.3.7: Interaction effects

The researcher also examined the interaction among the variables under study. The examination identified some interaction effects between college, gender and age on the one hand and both general evaluation and program evaluation on the other hand. Their respective results were:  $F(4, 246) = 2.584$ ,  $p = .038$ ,  $MSE = 4.874$ ,  $F(4, 246) = 2.382$ ,  $p = .041$ ,  $MSE = 4.945$ . The interaction effect turned out, however, significant insignificant for personal development  $F(4, 246) = .866$ ,  $p = .485$ ,  $MSE = 35.390$  and for experience  $F(4, 246) = .583$ ,  $p = .675$ ,  $MSE = 14.192$ . Tables 4.9 and 4.10 below shows the ANOVA interaction affects among variables.

Table 4.9: Results of the ANOVA of private higher institution subscales according to demographic variables effects

Source of variation		Sum of Square	DF	Mean Square	F	P
Main effects	Personal development	10681.838	130	82.166	2.322	.001
	Experience	4406.343	130	33.895	2.388	.001
	General Evaluation	1801.204	130	13.855	2.843	.001
	Program Evaluation	1237.122	130	9.516	1.924	.001
College	Personal development	809.997	8	101.250	2.861	.005
	Experience	508.508	8	63.563	4.479	.001
	General Evaluation	126.739	8	15.843	3.250	.002
	Program Evaluation	73.701	8	9.213	1.863	.006
Gender	Personal	63.964	3	21.321	17.602	.001

	development					
	Experience	42.312	3	14.104	14.994	.001
	General Evaluation	14.569	3	4.856	15.996	.001
	Program Evaluation	10.425	3	3.475	7.703	.001
Course	Personal development	616.175	6	102.696	2.902	.009
	Experience	197.238	6	32.873	2.316	.034
	General Evaluation	154.436	6	25.739	5.281	.001
	Program Evaluation	68.437	6	11.406	2.307	.035
Age	Personal development	241.545	3	80.515	9.902	.026
	Experience	135.872	3	11.957	11.316	.007
	General Evaluation	98.031	3	75.677	6.704	.001
	Program Evaluation	17.464	3	54.821	5.990	.023
Sponsor	Personal development	6.699	1	6.699	.189	.664
	Experience	6.801	1	6.801	.479	.489
	General Evaluation	.051	1	.051	.010	.919
	Program Evaluation	.606	1	.606	.123	.727

On the other hand, the interaction effects were statistically insignificant for (a) college and gender; (b) college and course; (c) college, gender and course; (d) college and age; (e) gender and age; (f) college, gender and age; (g) course and age; (h) college, course and age; (i) gender, course and age; (j) college, gender, course and age, (k) college, and sponsor, (m) gender and sponsor, (n) college, gender, course and sponsor, (o) age and sponsor, (p) college, age and sponsor, (q) gender, age and sponsor, (r) college, gender, age and sponsor, (s) course, age and sponsor, (t) college, course, age and sponsor, (u) gender, course, age and sponsor, and (v) college, gender, course, age, and sponsor.

Table 4.10: Results of the ANOVA of private higher institution subscales according to demographic variables

Source of variation		Sum Squares	DF	Mean Square	F	P
College gender +	Personal development	287.639	7	41.091	1.161	.326
	Experience	94.383	7	13.483	.950	.469
	General Evaluation	96.166	7	13.738	2.819	.008
	Program Evaluation	29.419	7	(4.2)03	.850	.547
College course +	Personal development	76(8.3)81	8	96.048	2.714	.007
	Experience	194.194	8	2(4.2)74	1.710	.096
	General Evaluation	53.415	8	6.677	1.370	.210
	Program Evaluation	93.597	8	11.700	2.366	.018
Gender+ course	Personal development	29.949	2	14.974	.423	.655
	Experience	.868	2	.434	.031	.970
	General Evaluation	11.544	2	5.772	1.184	.308
	Program Evaluation	28.965	2	14.482	2.929	.055
College+ gender + course	Personal development	382.684	4	95.671	2.703	.031
	Experience	62.417	4	15.604	1.099	.357
	General Evaluation	7.631	4	1.908	.391	.815
	Program Evaluation	54.034	4	13.508	2.732	.030
College Age +	Personal development	539.548	14	38.539	1.089	.368
	Experience	247.187	14	17.656	1.244	.244
	General Evaluation	122.622	14	8.759	1.797	.040
	Program Evaluation	92.222	14	6.587	1.332	.189
Gender + age	Personal development	11.397	2	5.698	.161	.851
	Experience	23.669	2	11.835	.834	.436

	General Evaluation	18.249	2	9.125	1.872	.156
	Program Evaluation	.005	2	.002	.000	1.000
<b>Source of variation</b>		<b>Sum of Square</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>P</b>
College + gender +age	Personal development	122.551	4	30.638	.866	.485
	Experience	33.099	4	8.275	.583	.675
	General Evaluation	50.372	4	(12.5)93	2.584	.038
	Program Evaluation	47.123	4	11.781	2.382	.041
Course + age	Personal development	601.818	3	200.606	5.668	.001
	Experience	5.389	3	1.796	.127	.944
	General Evaluation	85.465	3	28.488	5.845	.001
	Program Evaluation	23.225	3	7.742	1.566	.198
College + course +age	Personal development	103.950	3	34.650	.979	.403
	Experience	3.393	3	1.131	.080	.971
	General Evaluation	8.012	3	2.671	.548	.650
	Program Evaluation	5.047	3	1.682	.340	.796
College+ gender +course + age	Personal development	11.955	1	11.955	.338	.562
	Experience	.141	1	.141	.010	.921
	General Evaluation	12.216	1	12.216	2.506	.115
	Program Evaluation	51.527	1	51.527	10.420	.001
College sponsor +	Personal development	.001	.001	.	.	1.000
	Experience	.001	.001	.	.	1.00
	General Evaluation	.001	.001	.	.	1.00
	Program Evaluation	.001	.001	.	.	1.00

Gender Sponsor	+	personal development	1.294	1	1.294	.037	.849
		experience	1.376	1	1.376	.097	.756
		General evaluation	.369	1	.369	.076	.784
		Program evaluation	3.450	1	3.450	.698	.404
College gender +sponsor	+	Personal development	521.603	3	173.868	4.913	.002
		Experience	137.711	3	45.904	3.234	.023
		General Evaluation	2(8.3)79	3	9.460	1.941	.124
		Program Evaluation	46.610	3	15.537	3.142	.026
<b>Source of variation</b>			<b>Sum Square</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>P</b>
Course sponsor	+	Personal development	118.875	3	39.625	1.120	.342
		Experience	9.206	3	3.069	.216	.885
		General Evaluation	10.935	3	3.645	.748	.525
		Program Evaluation	1.905	3	.635	.128	.943
College+ course sponsor	+	Personal development	309.710	5	61.942	1.750	.124
		Experience	104.423	5	(20.8)85	1.472	.200
		General Evaluation	18.079	5	3.616	.742	.593
		Program Evaluation	30.212	5	6.042	1.222	.299
Gender+ course +sponsor		Personal development	.001	.001	.	.	1.000
		Experience	.001	.001	.	.	1.00
		General Evaluation	.001	.001	.	.	1.00
		Program Evaluation	.001	.001	.	.	1.00

College + gender + course sponsor	Personal development	.001	.001	.	.	1.000
	Experience	.001	.001	.	.	1.00
	General Evaluation	.001	.001	.	.	1.00
	Program Evaluation	.001	.001	.	.	1.00
Age + sponsor	Personal development	57.383	3	19.128	.540	.655
	Experience	12.665	3	(4.2)22	.297	.827
	General Evaluation	13.543	3	4.514	.926	.429
	Program Evaluation	8.151	3	2.717	.549	.649
College + age + sponsor	Personal development	64.856	3	21.619	.611	.609
	Experience	38.811	3	12.937	.912	.436
	General Evaluation	33.231	3	11.077	2.273	.081
	Program Evaluation	12.849	3	(4.2)83	.866	.459
Gender + age + sponsor	Personal development	.001	.001	.	.	1.000
	Experience	.001	.001	.	.	1.00
	General Evaluation	.001	.001	.	.	1.00
	Program Evaluation	.001	.001	.	.	1.00
<b>Source of variation</b>		<b>Sum of Square</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>P</b>
College+ gender + age + sponsor	Personal development	.001	.001	.	.	1.000
	Experience	.001	.001	.	.	1.00
	General Evaluation	.001	.001	.	.	1.00
	Program Evaluation	.001	.001	.	.	1.00
Course + age	Personal	26.362	2	13.181	.372	.689

+ sponsor	development					
	Experience	10.467	2	5.233	.369	.692
	General Evaluation	17.562	2	8.781	1.801	.167
	Program Evaluation	5.979	2	2.989	.605	.547
College+ course +age + sponsor	Personal development	.998	1	.998	.028	.867
	Experience	1.029	1	1.029	.073	.788
	General Evaluation	7.365	1	7.365	1.511	.220
	Program Evaluation	2.025	1	2.025	.410	.523
Gender+ course+ age+ sponsor	Personal development	.001	.001	.	.	1.000
	Experience	.001	.001	.	.	1.00
	General Evaluation	.001	.001	.	.	1.00
	Program Evaluation	.001	.001	.	.	1.00
College+ gender+ course+ age+ sponsor	Personal development	.001	.001	.	.	1.000
	Experience	.001	.001	.	.	1.00
	General Evaluation	.001	.001	.	.	1.00
	Program Evaluation	.001	.001	.	.	1.00

#### 4.3.8: Examination of mean differences

Since the results of multivariate (MANOVA) and Univariate analyses suggested significant relations among the factors under study, follow up analyses were warranted to investigate the differences. Results are as shown in Table 4.11. The means suggested that the female scored relatively higher than their male counterparts on all the factors; i.e., Personal Development, Experience, General Evaluation and Program Evaluation. In Personal Development, the female



respondents reported a score of (Mean = 55.156, SD = 1.71) compared to their male counterparts (Mean = 48.612, SD = 6.57). The females also expressed a more positive experience in the private institution of higher education (Mean = 30.03, SD = 1.08) in related to the males (Mean = 27.81, SD = 4.16).

Table 4.11: Mean differences across Gender

<b>Factors</b>	<b>Gender</b>	<b>Mean</b>	<b>Std. Deviation</b>
Personal development	Male	48.61	6.56
	Female	55.16	1.71
Experience	Male	27.81	4.16
	Female	30.03	1.08
General evaluation	Male	16.21	2.44
	Female	17.30	.64
Program evaluation	Male	19.57	2.46
	Female	21.83	.64

The same pattern was duplicated in the General Evaluation where the females yielded an overall score of (Mean= 17.30, SD = .64) as opposed to (Mean = 16.21, SD = 2.44) for the male respondents. The Program Evaluation factor was no exception, as the females reported a more positive evaluation of the institutions where they were registered, (Mean = 21.83, SD = .64) compared to male students (Mean = 19.57, SD = 2.46). As Table 4.11 above reveals, the females not only reported higher scores on all factors, but also demonstrated a higher level of consistency in their evaluation, epitomized in their consistently lower standard deviations.

With regard to courses, the study found that Bachelor degree students had more positive perceptions towards Personal Development (Mean= 27.73, SD = .632) and experience; (Mean =16.87, SD = .400) compared to their diploma students colleagues who scored (Mean = 26.93, SD =.58; and Mean = 16.28, SD

= .37) and master students (Mean = 26.71, SD = 1.92 and 14.62, SD = 1.21) respectively. However, the master students were more positive in terms of general evaluation (Mean = 10.48, SD = .71). The Bachelor students scored the second highest score (Mean = 8.91, SD = .23), slightly above their diploma counterparts (Mean = 8.79 and SD = .23). Finally, the analysis found that the diploma students, with a score of (Mean = 9.71, SD = .22) towards the General Evaluation factor, slightly outperformed their bachelor students (Mean = 9.27, SD = .24) and master students (Mean = 8.51, SD = .72). Table 4.12 below offers a summary of the mean differences between the respondents by course.

Table 4.12: Mean differences across Courses

<b>Factors</b>	<b>Course</b>	<b>Mean</b>	<b>Std. Deviation</b>
Personal development	Diploma	26.93	.583
	Bachelor	27.73	.632
	Master	26.71	1.92
Experience	Diploma	16.28	.37
	Bachelor	16.87	.40
	Master	14.62	1.21
General evaluation	Diploma	8.79	.22
	Bachelor	8.91	.23
	Master	10.48	.71
Program evaluation	Diploma	9.71	.22
	Bachelor	9.27	.24
	Master	8.51	.72

Interestingly, in terms of the respondents' age, the study found that 26-30 age group had the most positive attitude towards the private institutions of higher learning in the four factors: Personal Development of (Mean = 29.35, SD= 1.29); Experience (Mean = 18.44, SD = .82); General Evaluation (Mean = 10.54, SD = .48); and Program Evaluation (Mean = 9.53, SD = .48). The '16-20' age group scored (Mean, 27.81, SD = .65; Mean =16.23, SD = .42; Mean = 8.92, SD .24, and Mean = 9.36, SD = .24 for personal development, experience development, general evaluation and program evaluation respectively. As Table 4.13 shows, the respondents belonging to the 21- 25 group slightly outperformed the students aged 30 year and above in all the factors. For the Personal Development factor, the two groups reported (Mean = 29.35, SD = 1.29 and Mean = 26.26, SD = 1.50) respectively. As for Experience, their scores were (Mean = 15.83, SD = .37 and Mean = 15.67, SD = .95). For general evaluation, they reported (Mean = 8.76, SD = .22 and Mean = 7. 38, SD .55) respectively and for program evaluation respectively, their scores were (Mean = 8.76, SD = .22 and Mean 8.07, SD = .56) correspondingly.

Table 4.13: Mean differences across Age

<b>Dependent Variable</b>	<b>Age</b>	<b>Mean</b>	<b>Std. Deviation</b>
Personal development	16-20	27.81	.65
	21-25	26.72	.58
	26-30	29.35	1.29
	31-above	26.26	1.50
Experience	16-20	16.23	.42
	21-25	15.83	.37
	26-30	18.44	.82
	31-above	15.67	.95
General evaluation	16-20	8.92	.24
	21-25	8.76	.22
	26-30	10.54	.48

	31-above	7.38	.55
Program evaluation	16-20	9.36	.24
	21-25	9.47	.22
	26-30	9.53	.48
	31-above	8.07	.56

---

The findings above indicate generally that the students with belonging to different age groups had varying attitudes across the factors. The 26-30 age group appears to be the most satisfied, followed by 16-20 age group, then the 21-25. The senior students (30 years old and above) seem to be the least satisfied age group.

Since sponsor was statistically insignificant, no further examination of the mean differences between the two groups, i.e., government sponsored versus self-sponsored, has been conducted. This specific finding, however, suggests that the students hold similar views of the four factors regardless of where their tuition money comes from. In other words, the fact that some students have government scholarships while the others are self-sustained does not have any statistically significant effect on their attitudes towards the performance of the private institutions of higher learning in the Sultanate of Oman.

#### **4.4: Part II: Analysis and Results of the Survey on the Implementation Extent of Quality Assurance Policy by College Managers in Oman**

The second part of the research also used a survey instrument concerning the implementation extent of quality assurance policy by private colleges in Oman. The survey consisted of 11 important dimensions, namely: mission and objective, improving institutional effectiveness, instructional programs, program approval-monitoring and evaluation, student support services, library and learning support services, human resources, physical resources, technology resources, financial resources and the leadership—refer to Appendix 2. The survey instrument was translated into Arabic and checked by two professors in Oman. It was then distributed to top-managers in eight private colleges. Three top-managers from each college were sought to answer the questionnaire, which had 166 items.

The researcher visited each college to seek the co-operation of college managers and to personally administer the survey questionnaire in three sessions within two days; this to reduce anxiety and fatigue in answering the questionnaire, and thus to increase the truthfulness in answering the questionnaire. The results of data analysis are presented in the ensuing tables. The 5-point ordinal rank scale for implementation extent is explained as follows:

- |               |               |          |
|---------------|---------------|----------|
| 1 : Poor      | 2 : Fair      | 3 : Good |
| 4 : Very Good | 5 : Excellent |          |

Table 4.14: Frequency and Percentage of Responses by College Managers Regarding the Implementation Extent of Quality Assurance Policy on College Mission by Private Colleges/ Universities in Oman

<u>College Mission Statement</u>	Quality Assurance Implementation Extent					Mean score
	1	2	3	4	5	
1-The mission statement of this institution has been designed collectively by the management and academic staff.	1 (4.2)	9 (37.5)	4 (16.7)	7 (29.2)	3 (12.5)	3.08
2- The mission statement of the institution clearly expresses quality instruction and learning.	---	10 (41.7)	4 (10.7)	7 (29.2)	3 (12.5)	3.13
3-The mission statement of the institution clearly expresses the curriculum content appropriate for higher education standard.	---	3 (4.2)	14 (62.5)	7 (29.2)	--	3.17
4-The mission statement of this institution is directed at achieving world-class benchmark.	1 (4.2)	---	15 (62.5)	6 (25.2)	2 (8.3)	3.33
5-The mission statement of this institution expresses its commitment to excellence student learning.	---	10 (41.7)	7 (29.2)	4 (16.7)	3 (12.5)	3.00
6-The institution mission statement identifies values to which all employees must conform.	---	10 (41.7)	6 (25.0)	4 (16.7)	4 (16.7)	3.08
7-There is widespread support and acceptance for the institution's mission statement.	---	11 (45.8)	3 (12.5)	10 (41.7)	---	2.96
Total frequency	2	50	53	45	15	

Based on the results in Table 4.14, and focusing on the 'excellent' level of quality assurance, only 3 out of 24 managers ((12.5) %) stated that 'the mission statement of their institution has been designed collectively by the management and academic staff,' and 3 managers ((12.5) %) also stated that 'the mission statement of the institution clearly expresses quality instruction and learning.' Furthermore, none (0 %) of the 24 managers indicated 'excellent' for item 3

regarding 'the mission statement of the institution clearly expresses the curriculum content appropriate for higher education standard' and only 2 managers (8.5 %) indicated 'excellent' for item 4 about 'the mission statement of this institution is directed at achieving world-class benchmark.' As for item 5, only 3 managers ((12.5) %) indicated 'excellent' regarding 'the mission statement of this institution expresses its commitment to excellence in student learning,' and only 4 managers ((16.7) %) rated 'excellent' for item 6 on 'the institution's mission statement identifies values to which all employees must conform.' In addition, none of the managers rated 'excellent' for item 7 on 'there is widespread support and acceptance for the institution's mission statement.'

On the other hand, more than half of the 24 college managers rated their college from 'fair' to 'good' on the seven items mentioned before. One manager rated 'poor' level of fulfilment of quality assurance for item 1 regarding 'the mission statement of the institution has been designed collectively by the management and academic staff' and for item 4 regarding 'the mission statement of this institution is directed at achieving world-class benchmark.'

In general, the results in Table 4.14 before portrayed that private colleges/ universities in Oman were aware of the guiding purpose of their mission statement as providers of higher education and training, and the colleges are gradually implementing the quality assurance policy. In this regard, the private colleges/ universities acknowledged their accountability to the students and

public. However, they should focus intensively and extensively on the curriculum mission statement for achieving world-class standard.

Table 4.15 below shows the results of the survey on the college managers' perception on the extent of quality assurance implementation for the dimension on their college governance.

Table 4.15: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Governance by Private Colleges/ Universities in Oman

Governance	Implementation Extent					Mean score
	1	2	3	4	5	
8- Staff and employees in this institution share a common vision of what the work should be accomplish.	2 (8.3)	6 (25.0)	8 (33.3)	7 (29.2)	1 (4.2)	2.96
9- Staff have an opportunities for self assessment with respect to goal attainment.	7 (29.2)	5 (20.8)	3 (12.5)	6 (25.0)	3 (12.5)	2.71
10- Staff can often bring new ideas into the institution.	4 (16.7)	5 (20.8)	5 (20.8)	8 (33.3)	2 (8.3)	2.96
11-People who are new to this institution are encouraged to question the way things are done.	7 (29.2)	4 (16.7)	7 (29.2)	1 (4.2)	5 (20.8)	2.71
12-Innovative ideas that work are often rewarded by leadership.	5 (20.8)	7 (29.2)	8 (33.3)	1 (4.2)	3 (12.5)	2.58
13-Quality culture is welcomed by leadership.	1 (4.2)	14 (58.3)	2 (8.3)	3 (12.5)	4 (16.7)	2.79
14- Current institutional practice encourages employees to solve problems together before discussing it with a supervisor.	2 (8.3)	11 (45.8)	4 (16.7)	5 (20.8)	2 (8.3)	2.75
15-Most problem solving groups in this institution feature employees from a variety of functional areas of divisions.	---	9 (37.5)	13 (54.2)	1 (4.2)	1 (4.2)	2.75
16-There is much overlap in work between different units in the institution.	---	8 (33.3)	14 (58.3)	2 (8.3)	---	2.75



17-Training in this institution is done in work teams.	1 (4.2)	12 (50.0)	5 (20.8)	5 (20.8)	1 (4.2)	2.71
18- Staff have opportunities to share knowledge and skills learned from training with other employees.	1 (4.2)	12 (50.0)	9 (37.5)	2 (8.3)	--	2.5
19- Staff often have an opportunity to talk to other staff about successful programs or work activities in order to understand why they succeed.	1 (4.2)	12 (50.0)	9 (37.5)	2 (8.3)	---	2.5
20- New work processes that may be useful to the institution as a whole are usually shared with all employees.	1 (4.2)	10 (41.7)	7 (29.2)	5 (20.8)	1 (4.2)	2.79
21- Staff have a system that allows them to learn successful practice from other institutions.	2 (8.3)	13 (54.2)	4 (16.7)	4 (16.7)	1 (4.2)	2.54
22- Problems are solved by not only identifying the solution, but by identifying what led to the problem and how it can be prevented.	2 (8.3)	12 (50.0)	6 (25.0)	4 (16.7)	---	2.50
23-Individuals and teams are encouraged to reflect on actions which led to successes or failures.	3 (12.5)	6 (25.0)	12 (50.0)	3 (12.5)	---	2.62
24-Employees are informed of how their role contributes to the overall institutional process.	3 (12.5)	9 (37.5)	11 (45.8)	1 (4.2)	---	2.41
25-Employees are encouraged to understand the perspectives of people in other positions.	2 (8.3)	16 (66.7)	4 (16.7)	2 (8.3)	---	2.25
26-Leaders in this institution are opened to change and new ideas.	7 (29.2)	7 (29.2)	6 (25.0)	4 (16.7)	---	2.29
27-Leaders in this institution frequently involve employees in important decisions.	8 (33.3)	7 (29.2)	5 (20.8)	3 (12.5)	1 (4.2)	2.25
28-Leaders in this institution can accept criticism without becoming overly defensive.	4	10	3	3	4	2.71
29-Leaders in this institution often provide feedback that helps to identify potential problems and opportunities.	3	8	9	4	---	2.58
30-Management skills such as leadership, coaching and team building are emphasized as much as purely technical work skills in this institution.	2 (8.3)	8 (33.3)	11 (45.8)	3 (12.5)	---	2.63
31- Staff have opportunities to work on challenging assignments.	3 (12.5)	9 (37.5)	8 (33.3)	3 (12.5)	1 (4.2)	2.58
32- Work makes full use of staff's skills and abilities.	3 (12.5)	8 (33.3)	5 (20.8)	7 (29.2)	1 (4.2)	2.79

Reading the mean scores, the general pattern of managers' responses was at 'fair,' i.e. in general, the college managers in Oman stated that governance initiatives regarding quality assurance were still not satisfactory, or that their colleges were not doing the initiatives well enough. If 'excellent' (score 5) was set as the benchmark, then not even one college manager gave distinction on the ten following quality assurance initiatives. These ten initiatives needed serious attention by the colleges:

- Clear job specifications of units so as to reduce much overlapping in work between different units in the institution.
- Staff should have opportunities to share knowledge and skills learned from training with other employees.
- Staff should have opportunities to discuss with other staff about successful programs or work activities in order to understand why they succeed.
- Problems should be solved by not only identifying the solutions, but by identifying what led to the problem and how it can be prevented.
- Individuals and teams should be encouraged to reflect on actions which led to successes or failures.
- Employees should be informed of how their role contributes to the overall institutional process.
- Employees should be encouraged to understand the perspectives of people in other positions.
- Leaders in the institutions should be opened to change and new ideas.
- Leaders in this institution should often provide feedback that could help to identify potential problems and opportunities.

- Management skills such as leadership, coaching and team building should be emphasized as much as purely technical work skills in this institution.

On the other hand, cross-checking with the mean score values of the survey data, the initiatives that had a value equal to and less than 2.5—i.e. that needed extra efforts by the college management to improve—were as follows:

- Staff should have opportunities to share knowledge and skills learned from training with other employees.
- Staff should often have an opportunity to talk to other staff about successful programs or work activities in order to understand why they succeed.
- Employees should be informed of how their role contributes to the overall institutional process.
- Employees should be encouraged to understand the perspectives of people in other positions.
- Leaders in this institution should be opened to change and new ideas.
- Leaders in this institution should frequently involve employees in important decisions.

In general, the above results indicated one important point: that the college management of private colleges in Oman should improve upon participative management, teamwork in decision making, role description, responsiveness, innovation, and in-house professional workshops. The vital key concepts were organizational cohesiveness and organizational learning.

Table 4.16 next page shows the results of data analysis regarding managers' perception on the extent of implementation of quality assurance on management effectiveness in private colleges in Oman.

Table 4.16: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Effectiveness of Management in Private Colleges/ Universities in Oman

Effectiveness of Management	Implementation Extent					Mean score
	1	2	3	4	5	
33- The institution has a set of criteria used to determine its priorities.	4 (16.7)	6 (25.0)	8 (33.3)	6 (25.0)	---	2.67
34- The goals of the institution have broad-based understanding to implement.	1 (4.2)	8 (33.3)	12 (50.0)	2 (8.3)	1 (4.2)	2.75
35- The institution's capability to implement its goals.	1 (4.2)	10 (41.7)	6 (25.0)	6 (25.0)	1 (4.2)	2.83
36- The institution has a planning process in place.	2 (8.3)	7 (29.2)	9 (37.5)	5 (20.8)	1 (4.2)	2.83
37- The institution's budgeting of resources follow the planning.	1 (4.2)	7 (29.2)	8 (33.3)	7 (29.2)	1 (4.2)	3.00
38- The extent of institution data available and used for planning.	1 (4.2)	5 (29.2)	10 (33.3)	7 (29.2)	1 (4.2)	3.08
39- The data are analyzed and interpreted for easy understanding by the institution community.	1 (4.2)	7 (29.2)	12 (50.0)	4 (16.7)	---	2.79
40- The institution's databases are accurate, current and accessible.	2 (8.3)	10 (41.7)	6 (25.0)	5 (20.8)	1 (4.2)	2.71
41- The institution publicize its statistics on student achievement and student learning to the public in different means.	3 (12.5)	9 (37.5)	9 (37.5)	3 (12.5)	---	2.50
42- The means of the institution's assessment are effectively communicating information about institutional quality to public.	2 (8.3)	15 (62.5)	3 (12.5)	4 (16.7)	---	2.38
43- The institution using modern processes to assess the effectiveness of its cycle evaluation, integrated planning, resource allocation implementation.	1 (4.2)	6 (25.0)	11 (45.8)	6 (25.0)	---	2.92

44- The institution mechanisms are current and accurate, that using to gather evidence about the effectiveness of programs and services.	---	5 (20.8)	15 (62.5)	4 (16.7)	---	2.96
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Based on the results in Table 4.16, two survey items that have the lowest mean score value were those regarding communicating to the public about students' academic achievement (item 41, mean score 2.50) and institutional quality (item 42, mean score 2.38). This result implied that private colleges in Oman should convey to the public periodically their quality assurance initiatives of their study programs, college achievement, students' achievement, and quality of facilities. The student parents have the right to know all these aspects because they pay for their children's education. The important point is public accountability via the communication media such as college bulletin, newspaper, and website.

Furthermore, adding the scores of '1' (very poor) and '2' (fair) in Table 4.16 together, one could get an indication of the aspects which private colleges ought to improve its management effectiveness. The items that needed serious attention by the college management were:

- The accuracy and accessibility of institution's databases.
- The institution's capability in implementing its goals.
- A set of quality assurance criteria used by college management for defining its improvement priorities
- The goals of the institution are broad-based, can be understood clearly, and are practical to implement.

On the other hand, the items that had an overall 'good' rating (mean score around 3) by college managers were those pertaining to budget planning and resources planning. This should be the case because college sustainability depends on a sound strategic planning of resources and actions. Clear, practical goals are crucial for planning and organisational improvement. Hazy goals can cause misinterpretation and poor implementation of policies and plans.

Table 4.17 shows the results of analysis of the survey on managers' responses concerning quality assurance policy that pertains to study programs in private colleges/universities in Oman.

Table 4.17: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Study Programs in Private Colleges in Oman

Instructional Matters on Study Programs	Implementation Extent					Mean Score
	1	2	3	4	5	
45- The Institution ensure that its programs and services are of high quality.	---	7 (29.2)	10 (41.7)	6 (25.0)	1 (4.2)	3.04
46- The institution ensure that its programs are appropriate as an institution of higher education.	---	7	11	5	1	3.00
47- The institution chooses the suitable fields of study in offering programs.	---	7 (29.2)	11 (45.8)	4 (16.7)	2 (8.3)	3.04
48- The institution follows a process for establishing and evaluating each type of course and programs.	---	14 (58.3)	3 (12.5)	5 (20.8)	2 (8.3)	2.79
49- The institution implements established policies and institutional processes guide the development and evaluation of courses and programs.	---	10 (41.7)	5 (20.8)	7 (29.2)	2 (8.3)	3.04
50- The procedures lead to assessment of quality and improvement.	---	8 (33.3)	9 (37.5)	6 (25.0)	1 (4.2)	3.00
51- The institution evaluated its courses and programs yearly.	1 (4.1)	13 (54.2)	3 (12.5)	7 (29.2)	---	2.67
52- The improvements of courses and	2	11	3	7	1	2.75

programs have occurred as a result of evaluation.	(8.3)	(45.8)	(12.5)	(29.2)	(4.2)	
53- Students have a clear path to achieving the student learning outcomes required of a course, program degree, certificate.	6 (25.0)	5 (20.8)	5 (20.8)	8 (33.3)	---	2.63
54- The institution used a set of criteria in deciding on the breadth, depth, rigor sequencing, time to completion and synthesis of learning breadth of each program its offers.	6 (25.0)	4 (16.7)	10 (41.7)	3 (12.5)	1 (4.2)	2.54
55- The institution performed assessment of student learning style.	2 (8.3)	8 (33.3)	11 (45.8)	3 (12.5)	---	2.62
56- The institution knowledgeable about learning needs and pedagogical approaches.	---	6 (25.0)	11 (45.8)	4 (16.7)	2 (8.3)	3.09
57- Credits awarded are consistent with accepted norms in higher education.	--	5 (20.8)	10 (41.7)	3 (12.5)	6 (25.0)	3.42
58- Student learning outcomes are used to analyze courses for inclusion as a general education.	---	12 (50.0)	4 (16.7)	8 (33.3)	---	2.83
59- The general education philosophy are reflected in the degree requirements.	---	10 (41.7)	6 (25.0)	3 (12.5)	5 (20.8)	3.13
60- The institution has a consistent process for assuring the content and methodology which are included in course outlines.	1 (4.2)	11 (45.8)	6 (25.0)	5 (20.8)	1 (4.2)	2.75
61- The institution has been developed standards to determine if general education students have attained the goals.	2 (8.3)	11 (45.8)	4 (16.7)	6 (25.0)	1 (4.2)	2.71
62- The institution's criteria that used to assure the required skill level are meet collegiate standards.	1 (4.2)	6 (25.0)	13 (54.2)	4 (16.7)	---	2.83
63- An institution information about its programs is clear and accurate.	---	10 (41.7)	4 (16.7)	8 (33.3)	2 (8.3)	3.08
64- Degrees and certificates are clearly described.	---	4	10	3	7	3.54
65- Student learning outcomes are included in descriptions of courses and programs.	---	4 (16.7)	11 (45.8)	2 (8.3)	7 (29.2)	3.50
66- The institution's policy has a flexible adjustment in programs to address termination.	---	4 (16.7)	12 (50.0)	3 (12.5)	5 (20.8)	3.37
67- Students are advised on how to complete educational requirements when programs are terminated or modified.	---	8 (33.3)	7 (29.2)	4 (16.7)	5 (20.8)	3.25
68- Academic staff in this institution share a common vision of what the work should accomplish.	---	5 (20.8)	11 (45.8)	6 (25.0)	2 (8.3)	3.21
69- Academic staff have opportunities for self assessment with respect to goal	1 (4.2)	4 (16.7)	9 (37.5)	9 (37.5)	1 (4.2)	3.21

attainment.						
70- Academic staff have appropriate environment for creativity and challenge.	1 (4.2)	4 (16.7)	11 (45.8)	7 (29.2)	1 (4.2)	3.13
71- Academic staff work continuously to develop the levels and contribute to scientific research.	1 (4.2)	3 (12.5)	14 (58.3)	3 (12.5)	3 (12.5)	3.17
72- Academic staff promoting and stimulate the learning process.	1 (4.2)	12 (50.0)	6 (25.0)	4 (16.7)	1 (4.2)	2.67
73- The institution pay attention widely diverse sources of learning.	1 (4.2)	10 (41.7)	8 (33.3)	2 (8.3)	3 (12.5)	2.83
74- The institution has a periodic assessment of the sources of learning.	2 (8.3)	13 (54.2)	5 (20.8)	4 (16.7)	---	2.46
75- There is a clear improvement and radical sources based on the evaluation process.	1 (4.2)	9 (37.5)	8 (33.3)	6 (25.0)	---	2.79
76- The sources learning manages by qualified managers and having a good experience.	1 (4.2)	7 (29.2)	11 (45.8)	4 (16.7)	1 (4.2)	2.88
77- The institution adopts a clear policy in the modernization of techniques and media sources of learning.	---	7 (29.2)	11 (45.8)	3 (12.5)	3 (12.5)	3.08
78- The institution employed a qualified staff to deal with the various learning sources.	---	5 (20.8)	13 (54.2)	3 (12.5)	3 (12.5)	3.17
79- The managers of learning sources involved in identifying the budget of the institution.	---	8 (33.3)	10 (41.7)	5 (20.8)	1 (4.2)	2.96
80- The institution has a criteria and specific conditions in the process of selecting students.	2 (8.3)	6 (25.0)	12 (50.0)	3 (12.5)	1 (4.2)	2.79
81- The institution used variety process to evaluate the effectiveness of practices and tools of admission.	1 (4.2)	10 (41.7)	9 (37.5)	4 (16.7)	---	2.67
82- The institution is keen to develop the responsibility of student.	1 (4.2)	4 (16.7)	14 (58.3)	4 (16.7)	1 (4.2)	3.00
83- The ability of student to self-management.	1 (4.2)	5 (20.8)	13 (54.2)	4 (16.7)	1 (4.2)	2.96
84- The ability of student to logical thinking and solve the problems.	1 (4.2)	7 (29.2)	12 (50.0)	4 (16.7)	---	2.79
85- The student has a high motivation to learn.	3	6	8	7	---	2.79

Based on the results in Table 4.17 above and examining the mean score of all items, one could see the general pattern of responses by college managers regarding the extent of quality assurance on instruction and learning was ‘good’—i.e. mean scores in the range of 2.51 to 3.49. Two items that had a mean score of 3.5 or more were ‘degrees



and certificates are clearly described' (item 64), and 'student learning outcomes are included in descriptions of courses and programs' (item 65). These results implied that instructors and students were clear about the requirement for graduation at the certificate, bachelor, or master level and the expected level of learning outcomes.

Furthermore, two other items that had a high 'very good' rating by college managers were 'academic staff have opportunities for self assessment with respect to goal attainment' (item 69, rated 'very good' by 9 managers or (37.5) %), and the other one was 'an institution's information about its programs is clear and accurate' (item 63, rated 'very good' by 8 managers or (33.3) %). These results implied that the college management had asked academic staff to do self-assessment of their instruction, and the college management did provide clear and accurate information to students and instructors about the goals and contents of various study programs.

On the contrary, the items which had a high number (50 % and more) of college managers who rated 'poor' to 'fair' were as follows:

- The institution follows a process for establishing and evaluating each type of course and programs (item 48, rated 'fair' by (58.3) % managers) .
- The institution evaluated its courses and programs yearly (item 51, rated 'fair' by (54.2) % managers).
- Student learning outcomes are used to analyze courses for inclusion as a general education (item 58, rated 'fair' by 50 % college managers).
- The institution has a periodic assessment of the sources of learning (item 74, rated 'fair' by (54.2) % managers) .

- Academic staff promoting and stimulate the learning process (item 72, rated 'fair' by 50 % managers).

These results imply that in order to assure high quality, college managers need to pay serious attention and improve their work processes in course evaluation, analysis of student performance for instructional improvement, and student counseling and advisory. To address this issue, private colleges in Oman should adopt a certain kind of quality assurance system, which later could become their in-built organizational culture. Quality instruction and learning is the vital element of sustainability and the core business of colleges in higher education and human resource development.

From Table 4.17, other quality assurance aspects that need to be improved by colleges include admission process and procedures, curriculum development of courses, variety of learning resources, and benchmarking academic standard. The improvement of those aspects is to be done continuously, and budget for it should be allocated. It is part of R & D in enhancing college development and quality.

Apart from that, one interesting finding shown in Table 4.17 is the low intellectual ability of college students in Oman—see items 83 and 84. Generally, the college managers rated their students at the fair—good level. Students' logical thinking skill and problem solving skill were less than good or average. The same is their motivation level.

Table 4.18 below shows the results of analysis of data on managers' perceptions regarding the quality of students support and services in private colleges in Oman.

Table 4.18: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Students Support in Private Colleges in Oman

Students Support & Services	Implementation Extent					Mean Score
	1	2	3	4	5	
86- The institution determines that admitted students are able to benefit from its programs.	---	8 (33.3)	8 (33.3)	7 (29.2)	1 (4.2)	3.04
87- The institution applied the information to admissions policies and procedures.	---	7 (29.2)	9 (37.5)	6 (25.0)	2 (8.3)	3.13
88- The institution assures the quality of its students support services.	---	7 (29.2)	11 (46.8)	4 (16.7)	2 (8.3)	3.04
89- The catalog current, clear, easy to understand, easy to use, well-structured.	---	5 (20.8)	14 (58.3)	3 (12.5)	2 (8.3)	3.08
90- The catalog reviewed for accuracy and currency.	---	3 (12.5)	17 (70.8)	2 (8.3)	2 (8.3)	3.13
91- The information on institution publications is easily accessible to student, prospective students and public.	1 (4.2)	5 (20.8)	10 (41.7)	4 (16.7)	4 (16.7)	3.21
92- The evidence is provided that the institution assesses student needs for services regardless of location and provides for them.	---	6 (25.0)	11 (45.8)	3 (12.5)	4 (16.7)	3.21
93- The institution has regularly evaluated on-line services at off-site location.	---	7 (29.2)	13 (54.2)	3 (12.5)	1 (4.2)	2.92
94- These services are meeting the needs of students.	1 (4.2)	9 (37.5)	8 (33.3)	3 (12.5)	3 (12.5)	2.92
95- The institution provided a learning environment that promotes these personal attributes.	---	12 (50.0)	4 (16.7)	6 (25.0)	2 (8.3)	2.92
96- The institution engaged in dialogues about what constitutes a good learning environment.	1 (4.2)	12 (50.0)	4 (16.7)	5 (20.8)	2 (8.3)	2.79
97- The institution programs or services determined contribute to the environment.	1 (4.2)	9 (37.5)	6 (25.0)	6 (25.0)	2 (8.3)	2.96
98- The institution identified different areas for improvement.	---	11 (45.8)	5 (20.8)	3 (12.5)	3 (12.5)	3.00
99- The institution evaluated its	1	10	6	4	3	2.92

effort in this area.	(4.2)	(41.7)	(25.0)	(16.7)	(12.5)	
100- The results of the evaluations are used to improve the environment.	1 (4.2)	11 (45.8)	8 (33.3)	3 (12.5)	1 (4.2)	2.67
101- The evaluation assess the student support services contribute to the achievement of student learning outcomes.	1 (4.2)	12 (50.0)	6 (25.0)	3 (12.5)	2 (8.3)	2.71
102- The evaluation results are used to improve services.	1 (4.2)	10 (41.7)	8 (33.3)	3 (12.5)	2 (8.3)	2.79

Based on the results in Table 4.18, the mean scores of all items were between 2.67 and 3.2, i.e. around score of 3 or ‘good.’ This means that managers rated students support and services at their college as ‘good.’ And, a general pattern of responses was that not more than five (5) managers rated ‘excellent’ quality to any of the survey items, and not more than one (1) manager ever rated ‘poor’ quality on any of the items. This indicated that managers believed that the facilities and services for students at their college were generally fairly good.

However, this research found that college managers needed to pay serious attention and make improvement initiatives on the following aspects:

- The results of student evaluation of college facilities and services should be used to improve college environment (items 100, 101 and 102).
- The institution engaged in dialogues with staff, students, education officers, and parents about what constitutes a good learning environment (items 95 and 96).

Table 4.19 next page shows the results of data analysis pertaining to the extent of implementation of quality assurance policy regarding library and learning support services in some private colleges in Oman.

Table 4.19: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Library and Learning Support Services in Private Colleges in Oman

Library and Learning Support Services	Quality Assurance Implementation Extent					Mean score
	1	2	3	4	5	
103- The information about student learning needs is provided by other instructional institution and staff to inform selection of library resources.	1 (4.2)	8 (33.3)	10 (41.7)	5 (20.8)	---	2.79
104- The institution assess the effectiveness of its own library collection in terms of quality, quality in depth and variety.	1 (4.2)	9 (37.5)	11 (45.8)	3 (12.5)	---	2.67
105- The quantity is sufficient to meet students learning needs.	4 (16.7)	9 (37.5)	9 (37.5)	2 (8.3)	---	2.37
106- The quality standards were determined as necessary by the institution.	3 (12.6)	11 (45.8)	9 (37.5)	1 (4.2)	---	2.33
107- The institution has sufficient depth and variety of materials to meet the learning needs of its students.	2 (8.3)	12 (50.0)	9 (37.5)	1 (4.2)	---	2.38
108- The institution purports to teach all students are information competencies.	---	7 (29.2)	13 (54.2)	4 (16.7)	---	2.88
109- The operation hours of the library is quite sufficient.	---	6 (25.0)	14 (58.3)	4 (16.7)	---	2.92
110- An electronic access is availability to library materials.	2 (8.3)	11 (45.8)	7 (29.2)	2 (8.3)	2 (8.3)	2.63
111- The institution has contracts that exist for the provision of library and learning support services.	1 (4.2)	11 (45.8)	6 (25.0)	6 (25.0)	---	2.71
112- The institution uses current processes for evaluating and ensuring the quality of those contracted services.	2 (8.3)	11 (45.8)	10 (41.7)	1 (4.2)	---	2.42
113- The institution used good methods to evaluate its library and other learning support services.	5 (20.8)	10 (41.7)	9 (37.5)	---	---	2.17

The results in Table 4.19 show a state of crisis in the area of library and learning support services in private colleges in Oman. Most of the items have the mean score of less than 2.5 i.e. towards 'fair' (or fairly good). Furthermore, except for item 110, none of the managers rated 'excellent' for all items.

The most critical aspect was the use of good and reliable methods for evaluating library and learning support services (mean score 2.17). Quality assurance policy required college managers to provide sufficient and quality learning services, especially library resources. This is because what students learned in classes need to be extended and enhanced by the extra knowledge in the library repository. In the globalization era today, easy access to the internet and information highway is the hallmark of knowledge power and quality learning.

The next critical aspect was the determination of quality standards by the private colleges (item 106, with the mean score of 2.33). More than 50 % college managers said their college did not determine extensively the quality standards for various areas of management. Stricter enforcement and guidance by the Ministry of Education is needed here so as to ensure that private colleges mobilise their staff to draw up a comprehensive quality standard plan. The poor response by private colleges in addressing quality standards was also supported by the survey item 112, which revealed that colleges did proactively used quality assurance process to evaluate and filter contract lecturers and management services.

Another issue of concern was the lack of a variety of materials to meet the learning needs of students in some private colleges (item 107, with the mean score of 2.38). This could mean a handicap in teaching and learning. In this regard, as part of its quality enhancement process, colleges should contract the assistance of curriculum materials providers, which could supply a wide range of reference materials and instructional technology tools.

Table 4.20 shows the results of data analysis on the extent of implementation of quality assurance policy on human resource management in private colleges in Oman.

Table 4.20: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Human Resource Management in Private Colleges in Oman

Human Resources	Quality Assurance Implementation Extent					Mean score
	1	2	3	4	5	
114- The institution assures the qualifications for each position are closely matched to specific programmatic needs.	1 (4.2)	12 (50.0)	7 (29.2)	2 (8.3)	2 (8.3)	2.67
115- The institution does analyses and discussions to agree on its needs.	---	10 (41.7)	9 (37.5)	3 (12.5)	2 (8.3)	2.88
116- The institution's personnel are sufficiently qualified to guarantee the integrity of programs and services.	---	5 (20.8)	11 (45.8)	5 (20.8)	3 (12.5)	3.25
117- The institution has a clear recruitment policy.	---	8 (33.3)	7 (29.2)	6 (25.0)	3 (12.5)	3.17
118- The institution follows a good method to decide on whether an applicant is well qualified.	1 (4.2)	3 (12.5)	12 (50.0)	5 (20.8)	3 (12.5)	3.25
119- The institution used different means to advertise the jobs.	---	9 (37.5)	7 (29.2)	7 (29.2)	1 (4.2)	3.00
120- The institution has a process in place to assure participative evaluation which can lead to improvement of job performance.	2 (8.3)	6 (25.0)	10 (41.7)	6 (25.0)	---	2.83
121- There are connection between personal evaluations and institutional effectiveness and improvement.	1 (4.2)	9 (37.5)	9 (37.5)	4 (16.7)	1 (4.2)	2.79
122- Evaluation criteria to measure the effectiveness of personnel in performing their duties.	2 (8.3)	11 (45.8)	6 (25.0)	5 (20.8)	---	2.58
123- Teachers, tutors play an important role in producing student learning outcomes.	1 (4.2)	7 (29.2)	11 (45.8)	4 (16.7)	1 (4.2)	2.88
124- The institution organizes discussions and has plans to improve learning.	---	5 (20.8)	10 (41.7)	8 (33.3)	1 (4.2)	3.21
125- The institution developed its own methods to evaluate effectiveness in producing student learning outcomes.	1 (4.2)	5 (20.8)	13 (54.2)	5 (20.8)	---	2.92
126- The learning methods designed by the college produce meaningful and useful results.	---	8 (33.3)	12 (50.0)	4 (16.7)	---	2.83

127- The institution uses evaluation results to improve student learning outcomes.	1 (4.2)	10 (41.7)	12 (50.0)	1 (4.2)	---	2.54
128- The institution used different means to determine appropriate staffing levels for each program and service.	---	9 (37.5)	10 (41.7)	2 (8.3)	3 (12.5)	2.96
129- The institution has a good process to develop and publicize its personnel policies.	---	5 (20.8)	14 (58.3)	4 (16.7)	1 (4.2)	3.04
130- The institution administers its personnel policies consistently.	---	8 (33.3)	11 (45.8)	5 (20.8)	---	2.88
131- These policies and processes are in fair treatment of personnel.	---	4 (16.7)	14 (58.3)	2 (8.3)	4 (16.7)	3.25
132- The institution can determine sufficiently the kind of support to its personnel needs.	1 (4.2)	8 (33.3)	8 (33.3)	5 (20.8)	2 (8.3)	2.96
133- The institution designs programs and services that provide for the range of its personnel.	1 (4.2)	8 (33.3)	9 (37.5)	4 (16.7)	2 (8.3)	2.92
134- The institution has an effective programs and services to support its personnel.	1 (4.2)	5 (20.8)	13 (54.2)	4 (16.7)	1 (4.2)	2.96
135- The assessment processes ensures that professional development opportunities address professional needs.	1 (4.2)	12 (50.0)	7 (29.2)	4 (16.7)	---	2.58
136- The institution ensures meaningful evaluation of professional development activities.	1 (4.2)	10 (41.7)	11 (45.8)	1 (4.2)	1 (4.2)	2.63
137- Professional development does impact on teaching and learning.	1 (4.2)	9 (37.5)	10 (41.7)	3 (12.5)	1 (4.2)	2.75
138- The institution assesses the process in human resource development.	1 (4.2)	11 (45.8)	9 (37.5)	3 (12.5)	---	2.58

Based on the results in Table 4.20, in general the mean scores of the survey items on human resource management accentuated around the value of 3, i.e. 'good'. The range of values was between 2.54 and 3.25. In addition, not more than 40 % of the college managers gave a favourable response of 'very good' and 'excellent' to all the survey items in Table 4.20. Therefore, in general it could be said that quality assurance measures regarding human resource development among private colleges in Oman were in a 'good' state only. Going to specifics, none of the college managers rated 'excellent' on the following issues:



- The institution has a process in place to assure participative evaluation which can lead to improvement of job performance.
- Evaluation criteria to measure the effectiveness of personnel in performing their duties.
- The institution developed its own methods to evaluate its effectiveness in producing student learning outcomes.
- These learning methods designed by the institution produce meaningful and useful results.
- The institution uses evaluation results to improve student learning outcomes.
- The institution administers its personnel policies consistently.
- The institution assesses the process in human resource development.
- The assessment processes ensure that professional development opportunities address professional needs.

These results implied that more was needed to be done by the college management to improve its human resource development that had a direct bearing on student learning outcomes, i.e. particularly the teaching staff.

On the contrary, cross-checking with survey items that were rated 'poor' and 'fairly good' with a combined percentage between 40 % and 55 %, results revealed that college management needed to pay serious attention to the following human resource issues:

- The institution assures the qualifications for each position are closely matched to specific programmatic needs.

- The assessment processes ensure that professional development opportunities address professional needs.
- Evaluation criteria to measure the effectiveness of personnel in performing their duties.
- The institution ensures meaningful evaluation of professional development activities.
- The institution assesses the process in human resource development.

These results showed that college management should hire well-qualified teaching staff for each study program it offers. Theoretically high-quality teaching would produce high quality graduates or human resources for the public and private sectors. Consequently high quality human resources are vital for the national development of Oman. In this regard, college management ought to hire educational experts in order to provide in-house training for instructors pertaining to pedagogy, curriculum design, learning assessment, and instructional materials and technology. Training needs analysis may prove to be a useful tool for designing the most appropriate in-house professional development program for enhancing the quality of instructors.

Table 4.21 below shows the results of analysis of responses by college managers regarding the extent of implementation of quality assurance policy in the area of physical resources of private colleges in Oman.

Table 4.21: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Physical Resources in Private Colleges in Oman

Physical Resources	Quality Assurance Implementation Extent					Mean score
	1	2	3	4	5	
139- The institution has sufficient criteria and processes to evaluate the safety of its facilities.	3 (12.5)	6 (25.0)	3 (12.5)	5 (20.8)	---	2.71
140- The institution uses current and modern data to determine the sufficiency of its lecture halls, laboratories, and other facilities.	1 (4.2)	7 (29.2)	12 (50.0)	4 (16.7)	---	2.79
141- The institution employs effective mechanisms to evaluate how effectively facilities meet the needs of programs and services.	2 (8.3)	7 (29.2)	15 (62.5)	---	---	2.54
142- The institution uses the results of facilities evaluations to improve them.	2 (8.3)	10 (41.7)	11 (45.8)	---	1 (4.2)	2.50
143- The institution employs similar processes to assure the safety and sufficiency of its equipment.	---	6 (25.0)	13 (54.2)	3 (12.5)	2 (8.3)	3.04
144- The institution considers the needs of programs and services when planning its buildings.	1 (4.2)	4 (16.7)	13 (54.2)	4 (16.7)	2 (8.3)	3.08
145- Institution's processes ensure that program and services needs are determine equipment replacement and maintenance.	1 (4.2)	5 (20.8)	12 (50.0)	4 (16.7)	2 (8.3)	3.04
146- The institution evaluates effectiveness of facilities and equipment in meeting the needs of programs and services.	---	5 (20.8)	10 (41.7)	7 (29.2)	2 (8.3)	3.25
147- The institution uses its physical resources effectively.	3 (12.5)	4 (16.7)	13 (54.2)	3 (12.5)	1 (4.2)	2.79
148- The institution used an effective process to assess the use of its facilities.	---	5 (20.8)	14 (58.3)	5 (20.8)	---	3.00
149- The physical resources needs in program and service areas are meet effectively.	---	5 (20.8)	13 (54.2)	5 (20.8)	1 (4.2)	3.08

Based on the results in Table 4.21, in general the mean scores accentuated around the value of 3, i.e. 'good', ranging from 2.50 to 3.25. This indicated that private colleges in Oman were aware of the importance of systematic management of physical resources as part of the quality assurance process. The colleges had performed at a 'good' level. Some colleges managers had rated 'excellent' (score of 5) on items pertaining to evaluation process on its physical resources, and this implied that college management did place due importance to physical resources, which were vital for maintaining sustainability and good reputation of colleges. Poor physical resources automatically would reflect mediocrity of colleges, and therefore would repel potential students away. The results in Table 4.21 showed that colleges in Oman were concerned with the quality of instructional facilities and materials.

It appears that item 142 needed a serious attention, i.e. college management should take a positive action in using evaluation results to improve the quality and quantity of physical resources at colleges. This means that evaluation or assessment of physical facilities was not just for the sake of implementing a government policy, but it should be for quality improvement. The other item which needed attention was the use of evaluation results for improving effectiveness of services and facilities at colleges (item 141). Again, this finding urged college management to make good use of evaluation results to its advantage.

Table 4.22 shows the college manager's responses to the survey part on technology resources available at colleges in Oman.

Table 4.22: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Technology Resources in Private Colleges in Oman

Technology Resources	Quality Assurance Implementation Extent					Mean score
	1	2	3	4	5	
150- The various types of technology needs are identified.	1 (4.2)	6 (25.0)	9 (37.5)	5 (20.8)	3 (12.5)	3.13
151- The institution has an effective evaluation of its technology in meeting its range of needs.	1 (4.2)	6 (25.0)	12 (50.0)	5 (20.8)	---	2.88
152- The institution makes a precise decision about technology services, facilities, hardware and software.	1 (4.2)	8 (33.3)	11 (45.8)	3 (12.5)	1 (4.2)	2.79
153- The institution assesses the need for information technology training for students and personnel.	---	7 (29.2)	11 (45.8)	6 (25.0)	---	2.96
154- The institution provides an appropriate reliability system and emergency backup.	---	7 (29.2)	12 (50.0)	5 (20.8)	---	2.92
155- The institution made provision to assure a robust and secure technical infrastructure, providing maximum reliability for students and staff.	1 (4.2)	5 (20.8)	13 (54.2)	4 (16.7)	1 (4.2)	2.96
156- The institution has policies in place to keep the infrastructure reasonably up-to-date.	1 (4.2)	4 (16.7)	16 (66.7)	3 (12.5)	---	2.88
157- The institution ensures that facilities requirement emanates from institutional needs and plans for improvement.	---	2 (8.3)	14 (58.3)	8 (33.3)	---	3.25

Looking at the mean scores, results in Table 4.22 indicated that college managers gave a favourable response (around the score of 3 or good) to the quality of technology resources available at colleges in Oman. Technology here refers to computer and internet facilities and LCD projectors in classrooms and cyberlabs, which are the important tools for instruction and learning in colleges nowadays. Results also showed that colleges identified appropriately technological needs necessary for instruction and learning, and colleges

constantly made plans for improving its technological facilities. Colleges also installed secure and reliable ICT (information and communication technology) facilities so as to avoid disruption in its delivery of instruction and management services.

Table 4.23 below shows college managers' responses regarding their financial resources management.

Table 4.23: Frequency and Percentage of Managers' Perceptions on the Extent of Implementation of Quality Assurance Policy Concerning Financial Resources in Private Colleges in Oman

Financial Resources	Quality Assurance Implementation Extent					Mean score
	1	2	3	4	5	
158- The institution has sufficient overall budget.	---	3 (12.5)	13 (54.2)	3 (12.5)	5 (20.8)	3.42
159- The institution has sufficient revenues to support educational improvement.	---	5 (20.8)	10 (41.7)	4 (16.7)	5 (20.8)	3.37
160- The resource allocation process provide a means for setting priorities for funding institutional improvements.	1 (4.2)	4 (16.7)	12 (50.0)	5 (20.8)	2 (8.3)	3.13
161- The institution reviewed its mission and goals as a part of the annual fiscal planning process.	---	8 (33.3)	14 (58.3)	2 (8.3)	---	2.75
162- The institutional plans are exist and linked clearly to financial plans, both short term and long range.	---	8 (33.3)	10 (41.7)	6 (25.0)	---	2.92
163- The financial planning process relied primarily on institutional plans for content and timelines.	---	5 (20.8)	15 (62.5)	4 (16.7)	---	2.96
164- The institution can provide evidence that past fiscal expenditures have supported achievement of institutional plans.	---	4 (16.7)	16 (66.7)	3 (12.5)	1 (4.2)	3.04
165- The processes for financial planning and budget are recorded and made known to institution constituents.	1 (4.2)	5 (20.8)	13 (54.2)	3 (12.5)	2 (8.3)	3.00
166- The institution procedures for reviewing fiscal management are regularly implemented.	1 (4.2)	6 (25.0)	10 (41.7)	7 (29.2)	---	2.96

Based on the results in Table 4.23, in general the mean scores of implementation extent were around the value of 3, i.e. 'good', which showed that the financial resources management of private colleges in Oman was in good order. Colleges had sufficient annual budget for its operations and development. However, budget planning should be tailored to requirement of the quality assurance policy. For example, college mission and goals might be used as the basis for budget planning, both in the short range and long range.

#### **4.5: Part III: Interview Results on the Implementation of Quality Assurance by Private Higher Education Institutions in Oman**

The qualitative analysis in this part was to answer research questions 4 and 5, i.e.

4. In terms of college or university management, what are the managers of private colleges/ universities' reactions or feedbacks in carrying out the ten aspects of quality assurance in Oman?
5. Based on the college or university managers' experience as policy implementers, generally what are the main approaches and techniques used by college/ university managers in implementing quality assurance process in Oman?

Interview questions/ protocols as mentioned in Chapter Three before were used to collect the qualitative data. Interview sessions were held with eight private college/ university managers—which included university presidents. Interview

sessions were also held for getting accurate information on the demographic characteristics of the private institutions.

#### **4.5.1: Demographic Background of the Private Colleges**

As earlier mentioned the researcher interviewed general manager/ university president of eight private institutions in Oman. For ethical reason the colleges were named as Colleges A, B, C, D, E, F, G, and H. Among these demographic data required were type of institution, year of foundation, location, number of the students in the institution, number of full time teaching staff, number of study programs, number of courses per program, total number of credit hours or unit per program, total tuition fees, nature of program, qualification of academic and non-academic staff and the rate of employability of the students in job market after graduation.

Five of the eight interviewees responded that their institution was the general academic type, and that they were located in the urban locations, and that their institutions were established and had been operating between 7 to 10 years. However, one interviewee from institution D claimed that his institution was ICT type and two were business types (College E and G). They were also located in urban areas having registered students between 1000 and 2000. Institutions F and H had academic staff between 30 and 39 persons (i.e., relatively small), the remaining institutions had between 40 to 49 academic staff and run between seven and ten programs. Across the institutions, the most common study program was at the diploma level, followed by bachelor degree and then master degree.



Institutions B and E offered two master programs each, institutions C and D offered only one master program each, while F, G and H did not offer master program, and institution A failed to provide any information about the number of programs it offered.

The tuition fees of these institutions depended largely on the programs. Besides, the master programs (postgraduate) appeared to be more expensive compared to diploma and bachelor degree (undergraduate) per semester. The fees for bachelor and diploma ranged between Riyal Omani 1650 to 2500 across these eight colleges while the master program fees were between Riyal 5750 and 5990. Institution C refused to provide details about its fee structure. Institution G was the cheapest among these institutions with Riyal 750 fees for both bachelor and diploma programs.

The qualifications held by the academic staff differed significantly: institution B had 19 PhD holders and 5 master degree holders. Institution D had 8 PhD holders, 42 master degree holders, 32 bachelor degree holders and 18 higher diplomas. Furthermore, institution E has 8 PhD holders, 34 master holders, 10 bachelor degree holders and 9 with diplomas lower than bachelor, while institution C has 2 PhD holders with 5 master holders only. On the other hand, institutions A, F, G, H refused to answer the question regarding their staff qualifications.

Moreover, the number of credit hours was considerably different across the institutions and programs. At institution A, the diploma program comprised

32 units whereas bachelor comprised 63 units, while the students registered in institution B must underwent 240 credit points for diploma and 360 credit points for bachelor degree. Furthermore, institution F required 240 points for diploma and 484 for bachelor degree, while institutions C and E set their requirements at 21 and 28 points for diploma and 40 and 42 credit points for bachelor degree respectively. Institution D, however, required 240 credit points for diploma, 480 credit points for bachelor degree, and 180 credit points for master degree completion.

#### **4.5.2: Interview Findings for Section A**

##### 1. Uniqueness of Mission and Objectives of Private Higher Education Institutions in Oman

The question of private institution uniqueness received substantial attention from the interviewees. Reflecting the general situation in Oman's higher education landscape, the president of university C mentioned that:

The mission statement of the institution has been designed collectively by the management and academic staff. The mission statement of the institution clearly expresses the curriculum content appropriate for higher education standard. The private institutions of higher education in Oman are unique because they are established to fulfil the rising social demand for higher education, and they realized the importance of providing quality learning. The mission statement of this private institution, as well as others in general, expresses its commitment to excellent learning, identifies values to which all future employees of the private and public sectors must conform. There is a widespread support and acceptance for mission and objective statement among the teaching and management staff of this college.

The general managers of the eight private higher education institutions stated that it was imperative and compulsory for them to adhere to the

government's policy on quality assurance and accreditation. It was their social, economic, and moral obligation to provide higher education of satisfactory quality and relevant to the job market. The college managers also believed that the uniqueness of private institution of higher education in Oman depends on its physical facilities, and the ability to combine many learning media together to create an integrated and conducive learning environment. The eight general managers agreed that the college mission and objective in Oman "clearly expressed quality instruction and learning and that the mission of most private colleges/ universities was comprehensive enough". Additionally, the eight managers believed that their respective institutions were unique because they provided a favourable learning environment that caters for students regardless of their other commitments, as classes were flexible for both part-time and full-time students.

The president of university B stated that:

This institution is compelled to become more introspective and analytical, to undertake long range planning. The type of planning that appears to be most appropriate for the future is "strategic" market planning. Our university's vision is that it aspires to occupy a recognized position among the institutions of quality higher education. Our missions are to achieve excellence in teaching, research and community services, and thus the objectives are established in all key result areas and the activities which are most likely to impact the performance of the institution. Setting objectives is a major part of the strategic planning process.

However, the interviewees from institution A and G did not appear to share the upbeat tones of the other institutions. Both institutions expressed concerns about the mission and objective of their institution because they had not fulfilled the

fundamental requirements of quality assurance and accreditation. The two institutions aspired to get accreditation from the relevant Ministry and international bodies in Oman in the next two years. The president university A said:

The mission and vision statements of many PHEIs are too ambitious compared to the resources they commit. As most of the PHEIs in Oman are affiliated with foreign associates, some of their mission statements appear to echo those adopted by their partners, and, as such, fail to take into consideration the differences in resources, experience, legislations and/or socio-cultural environments in which they operate.

Furthermore, the manager of college G expressed that:

Some mission and vision statements are too vague to provide any practical guidance to the PHEIs. They are thus irrelevant to-and dissociated from- the operational plans (objectives), leaving the institutions operating almost on an ad-hoc basis.

## 2. Governance of The Private Higher Education Institutions

The governance of private institution of higher education in Oman entails a systematic organizational structure with clear power, authority, and roles to various position holders in the governing board and management officers. Governance policies and management decisions should shape and direct both students and staff towards the desired philosophy and values of the institution concerned. In this respect, the college manager of institution H acknowledged that:

The managerial staff and employees in their institution share a common understanding of what should be accomplished under the purview of the quality assurance policy. The staff could often bring in ideas that could enrich the institution's delivery. Quality instruments such as self-assessment, enhancement, and development checklists were used for checking goal attainment. The management

provided different types of support systems to facilitate the teaching and learning processes at the institution.

The college manager of institution D said:

People who are new to this institution are encouraged to question the ways things are done, and the staff are allowed to bring new ideas and quality culture is welcomed by leadership. The staff have ample opportunities to share knowledge, learn new skills through training with other employees and to talk freely to other staff about successful programs or work activities in order to understand why they succeed. In addition to that, innovative ideas that work are often rewarded by leadership. We emphatically believed that the current institutional practice encourages employees to solve problems together before discussing it with a supervisor.

College/ university managers were also aware of the importance of disseminating any new work process that may be useful to the institution as a whole among all employees. They believed that staff should have a system that allowed them to learn successful practices from other institutions.

The president of university F stated that:

To meet the expectation of higher education in the Sultanate of Oman in terms of growth and sustainability, it must achieve a level of quality that stands the test of international comparison, improve governance and accountability, and increase its funding. The governance of PHEIs in the Sultanate of Oman focused on profit-seeking rather than research and academic freedom, so faculty is disenfranchised without tenure and do not play a critical or civic role in society. For effective governance, private institutions need to consider their current approach to data management and collection in order to inform progress and support continuous improvement more effectively.

Another important aspect of governance was related to the leadership performance and interaction with the staff. Governance and leadership was

synonymous. In the globalized world, leadership should be in the form of team leadership which must be responsive. The president of university A said:

Leaders are open to change and new ideas, they frequently involve employees in important decisions, they can take any criticism constructively and with professional spirit, and they also provide feedback that helps to identify potential problems and opportunities.

In addition, the manager of college H said:

We have seriously underestimated the power of leadership in higher education. It is perhaps the most practical and cost effective and strategy known to organizations that are struggling to survive and to make progress through troubled waters. As we have to show through reporting the experience of academic staff, it can transform the commonplace and average into the remarkable and excellent. The most substantial advantage a college in a competitive and resource-hungry higher education system can possess is effective academic leadership.

In relation to management skills, the college/ university managers unequivocally asserted that management skills such as leadership, coaching, and team building were emphasized as much as purely technical work skills in their institution. The management staff was given opportunities to work on challenging assignment and appropriate training. This made employment challenging in the private institutions and allows them to make full use of staff's skills and abilities.

From interviews with the college/ university managers, it could be synthesized that whereas a number of PHEIs had begun setting up clear governance structures, the key decisions in the majority of the private institutions remained the prerogatives of the owners/ sponsors. This state of affairs was even more critical when the institution belongs to a single owner/sponsor, or when the

owners had neither the educational background requisite to take academic decisions, nor consultation procedures through which they may seek advice from specialized advisors. It appeared that some managers/owners of PHEIs perceived the governance structures (Board of Trustees, Academic Board, Industrial Advisory Board, etc...) as required only for public institutions. There seemed to be a misconception that privately owned/sponsored institutions are not accountable to any parties other than their owners/sponsors. There was confusion between the type of ownership and the management style.

### 3. Effective Management

Effective management is the fundamental requirement for the success of any organization whether that organization is a public or private. Effective management involves the skills, plans and procedures devised to deal with any situation in the organization and how the staff and employees should be treated. The objective of effective management is to secure the maximum prosperity for the employer, coupled with the well-being of each employee.

The college/ university managers were asked about effective management in their respective private institutions. They unveiled that their institutions had sets of criteria used to determine their priorities. They also mentioned that their respective institutions had some broad understanding of their goals as well as considerable capacities to achieve them. They also claimed that their institutions had articulated strategic plans in place, based on the data available and the sufficient financial resources carefully spent in line with the plans. Furthermore,

the interviewees described the databases of their respective institutions as accurate, current and accessible, and the available data were analyzed and interpreted for easy understanding by the institution community. The institutions also claimed a degree of transparency, as they publicize statistics on students' achievements and students learning to the public in different means. The president of university C stated that:

The means of the institution's assessment are effectively communicating information about institutional quality to the public, i.e. the institution uses modern processes to assess the effectiveness of its evaluation, integrated planning, resources allocation implementation. Finally, the management believed that the institution's mechanisms are current and accurate for gathering evidence about the effectiveness of programs and services.

When asked about problem solving process, the interviewees somewhat commonly agreed that management problems were solved by identifying not only the solution, but also the deep roots that led to its rise and how to prevent its reoccurrence in the future. Additionally, individuals and teams were encouraged to reflect on actions which led to successes and failures, while employees were made aware of how their roles/positions contribute to the overall institutional performance. Most problem solving groups in the institutions feature employees from a variety of functional areas of divisions. There was much overlap in work between different units in the institution. The employees were also encouraged to understand the roles of people in other positions.

Based on interviews and document analysis, the research found that officially the deans or Provosts were the managers of the PHEIs, but a good deal of the effective powers rested with the owners/ sponsors. Many decisions could



not be taken without prior return to them. This state of affairs deprived the real managers of executive authorities. The degree of interference by the owners/sponsors in the daily management of the institutions varied from one institution to the other. Some intrusive owners might even issue direct instructions to the middle-level management (Heads of Student Affairs, Admissions and Registration, Finance, etc), impairing, thus, the higher management's authorities over the institution and creating a dual system that could have adverse effects.

Managers at all levels require extensive training so that they can perform their tasks effectively. Thus far, institutions did not support such training. They instead hunted experienced managers. The absence of clear and transparent rules, regulations and procedures was the biggest issue that undermined effective management.

#### 4. Instructional Programs in Private Institutions

Instructional support system is a key component of any institution, be it public or private. The ultimate goal of any institution is to provide adequate, acute, meaningful and effective learning program to improve the life opportunities for students enrolled in various study programs, as stipulated in the objective of institutions. In order to achieve this noble goal, the instructional program must be suitable and appropriate to achieve the stated objectives. Therefore, the effective

instructional program is the backbone of any successful institution regardless of its status and type.

Based on interview analysis, it could be summarized that the effective delivery of any program depended on the availability of the resources it presupposes (lecturers, books, articles, labs, consultations, etc). If the localization of programs involved any reduction in these resources, there would be serious questions over the academic validity of the offering. The foreign institutions had in place mechanisms to ensure that the offering was comparable to what they provided before issuing the degrees. Recruiting sufficient numbers of experienced faculty was the biggest threat to any program. This appeared to be the case of many PHEIs which continued to offer attractive remuneration packages. Some program directors and/or heads of departments did not have the curriculum development expertise which allowed them to evaluate the programs as they ran and made necessary adjustments whenever they are deemed required.

Private higher education institutions in Oman, however, provided a number of support systems to their students to facilitate and enhance their instructional program and consequently their learning abilities and capabilities.

The president of university F said:

The institution ensures that its programs and services are of high quality through choosing the suitable fields of study in its study program and provides appropriate means for the students to accomplish the goals and objectives. The institution also implements established policies and institutional processes guide the development and evaluation of courses and programs. The institution used a set of criteria in deciding on the breath, depth,

rigor, sequencing, time to completion and synthesis of learning breath of each program its offers.

Moreover, the college/ university managers expressed their satisfaction with the general education philosophy which was reflected in the degree requirements. When the interviewees were asked about the evaluation and assessment, they consistently emphasized that their institutions conducted an assessment of student learning style, and described their institutions as knowledgeable in the areas of learning needs and pedagogical approaches. They also mentioned that the institution had a consistent process for assuring the content and methodology which were included in the course outline, and developed standards to determine if general education students had attained the goals. The manager of college G said:

The coursework programs delivered at this institution are based on those delivered at affiliated institutions. These programs have been reviewed to ensure that the content is relevant for students in the Sultanate of Oman through consultation with local industries and organizations.

The private colleges also essentially focused on students' achievements as a priority and main concern. Therefore, the institutions set criteria for high standard and the information about the programs were always upgraded, accurate and clear, while the degrees and certificates offered were clearly described. Also, the students' learning outcomes were included in descriptions of courses and programs, and the institution policies were reviewed occasionally to accommodate changes and demands.

College managers also pointed out the importance of academic staff in designing, implementing, and assessing study programs. The academic staff advised the students and offered possible assistance and advice on how to successfully complete their educational program, besides promoting the environment for creativity and challenge. Based on the nature of their jobs, the academic staff underwent in-house staff development workshops and they were encouraged to contributing significantly to the scientific research for the betterment of the institution, students and themselves.

The college/ university managers were asked regarding their concern about diversity of learning. Reflecting the general trend of the need to follow the quality assurance policy, the president of university A stated that:

Our institution is paying great attention to diverse sources of learning, and doing periodic assessments of these sources. The assessment is based on improvement and the sources of learning are managed by qualified staff capable to deal effectively with the variation of learning sources. The learning sources management is accomplished through identifying sufficient budget, setting criteria and specific condition in the process of student selection, using a variety of processes to evaluate the effectiveness of practices and tools of admissions.

Quality principles help the institution enormously to reach the world class standards. The setting of widely accepted standards emerges from the keenness to develop highly recognised institution, responsible students who are capable of self-management, students with high logical, critical and creative thinking, and highly motivated students to expand their repertoire of knowledge and contribute to national development.

### 5. College Infrastructure and Student Support Services

The infrastructure of private colleges was perceived by college/ university managers to be in a very good status. The infrastructure and students support services were able to draw people to study at the private institutions. According to the interviewees from the eight institutions involved in the study, they believed their students had benefited from various study programs. They affirmed that despite that these institutions were private, the students' priorities and welfare came above any consideration. The institutions provided high quality learning support services, current catalogues which were clear, understandable, easy to use, and well-structured. The information about the institutions was also accessible to the students and the stakeholders. The online services were also made available, and the services offered are regularly evaluated at off-site locations. The college manager of institution D said:

We are dedicated to offering a learning environment that promotes balanced personal attributes, and consistently identifies the areas that need to be improved. The Internet links our students to the centralized data centre. This data centre is equipped with uninterrupted power supply (UPS), and a back up power supply. If there is any power failure, the UPS would take over for the first few seconds until the normal power supply resumes.

Despite the reliable nature of the infrastructure, there were some technical concerns such as the difficulty in accessing the network from outside the university or from long distances. The manager of college G said “outside the

university is not under our control,” meaning they could not do anything about the network inaccessibility outside the institution's vicinity. In addition, the manager of college H also had a similar opinion, when he said that "in terms of infrastructure it is quite conducive now to promote learning. But then again, when it comes to technology it is always unpredictable".

Out of the eight managers, two were cautiously optimistic about the reliability of their students' support services and infrastructure facilities. Based on the observation of the researcher, the present physical infrastructure such as the main buildings, classrooms, laboratories, and the connectivity of the internet seemed quite adequate and reliable to accommodate the current students' populations. However, the Board of Trustees for institutions A and G needed to look carefully into the concerns of their managers because their responses were not compatible with the other institutions. According to the two managers, the private institutions were not having enough and sufficient student support services.

This study found that all colleges had student affairs department. The range of services the department provided varied from institution to institution, although they largely revolved around non-academic support. It appeared that many people believed that academic support was the area of the academic department, and specifically the lecturers. Some PHEIs have begun setting up extra-curricular activities for their students (sports, cultural, social, etc). These activities, however, remain limited in view of the inadequate resources allocated to them. Some institutions have opened virtual spaces for students to voice their

concerns and express their thoughts. They are yet to establish systematic policies and procedures to analyze these views and adopt them in the improvement of the services.

#### 6. Library and Learning Support Services

One crucial aspect of a conducive learning environment is the effectiveness and efficiency of the library and learning support services. The Omani private institutions' libraries and learning support services had high quality and large quantity of reference materials in various disciplines and branches of study. The vision, mission and strategies embraced by the private institutions acted as a guide for meeting the core functions of teaching, learning, research and community services, by which the role of the college or university library was based. The perceptions held by university's stakeholders on the role of the library as a contributor to these core functions influenced the environment within which the university library crafted its own mission and roles. The commonly accepted perception was that the education process values self-motivated discovery on the part of the students and faculty, and requires that libraries provide the knowledge and intellectual resources. The president of university B said:

At this institution, the library plays an important part in achieving the institution objectives to "ensure students explore their capabilities and take full advantages of the educational opportunities to develop their intellectual potentials and become lifelong learner. The library has an increasing collection of books and e-collections although survey results indicate that the general satisfaction with learning resources is low. The library has recently installed a Library Management System and Security System and provider's access to computers to allow e-collection access for users.

The college/ university managers consistently agreed that the role of the their institutions' libraries in teaching, learning and education was influenced by the institution's culture, values, and stakeholders' perceptions of the library as an essential pedagogic tool in support of the institutions' enterprise. In turn, this determined the types of library services developed in support of the teaching and learning process. According to them, however, there was a perceptible absence of teaching methods which encourage and reward independent learning based on the students' critical analysis and incorporation of various sources of information to classroom notes and prescribed texts.

College managers/ presidents consensually concurred that their institution assessed frequently the effectiveness and adequacy of their library collections in terms of quality and quantity of the available materials and online data bases to which their respective institutions had subscribed. The quality evaluation was essential due to the strong global competitive atmosphere among the institutions as well as in the labor market. That was the reason why they always persuaded the institution's Board of Trustees to continuously improve the library with new materials and collections. The library's book collection must expand in both depth and breadth; it needed to address a wide range of subjects, and it needed a sufficient number of books to give those subjects the coverage they deserve. The president of university F said:

The institution purports to give all our students quality knowledge, therefore we are continuously improving our libraries and the operation hours of the libraries are quite sufficient. We also set electronic access and on line data bases with journals to be provided. The current processes for evaluating and ensuring the quality services are available. Our system of library



implementation is efficient, and the mechanism of delivery is efficient also.

However, the manager of the private institution A called for urgent and necessary steps to be taken to address his library's insufficient collection, poor services and delivery system. Therefore, the manager proposed many steps to tackle his library problems. Among his recommendations are; (a) providing a service level that balances the need for institution communities to add content themselves with the need for format and metadata standards that allow us to meet our commitment to data preservation, (b) creating a federated environment, which balances the convenience of peer-to-peer communication having the commonalities and strengths of a centralized service with standardized interfaces and service expectations and subscribing up to data materials that can fulfil academic needs of the students and academic staff.

Based on observation data, it could be summarized that the support personnel operating libraries did not have the adequate training to support students in locating materials and/or conduct research. There were no plans to adopt inter-library loan systems; every institution appeared to operate on its own. The relatively small size of the reading halls and/or computer terminals and the slow internet connection appeared to dilute some of the benefits reaped from the newly-acquired books and electronic collections. Students should have full access to the databases of the foreign institutions with which their PHEIs were affiliated. It seemed that cost was the main obstacle to providing such a service.

## 7. Human Resources

Human resource is a term normally used to describe the combination of traditionally administrative personnel functions with performance management, employee relations and resources planning. The field draws upon concepts developed in Industrial/ Organizational Psychology. The more common usage within corporations and businesses refers to the individuals within the firm, and to the portion of the firm's organization that deals with hiring, firing, training, and other personnel issues. The objective of human resources is to maximize the return on investment from the organization's human capital and minimize financial risk. It is the responsibility of human resource managers to conduct these activities in an effective, legal, fair, and consistent manner. Human resources management serves functions of hiring (recruitment), compensation, evaluating management (performance), promotion, managing relation and planning.

When the college/ university managers were asked about the process of hiring (recruitment), with exception of institution A whose manager was obviously pessimistic, the seven other institutions affirmed that the merit and qualifications for each position were closely matched to specific programmatic needs. This step made their staff sufficiently qualified to handle their respective posts and thus guarantee the integrity of programs and services. Moreover, they asserted that their institutions had clear recruitment policies, and followed good methods to decide whether applicants are well qualified to be employed. The president of university C said:

There is no optimum utilization of resources. These constraints made them unable to attract the best and the brightest lecturers. Accordingly, it is hard for PHEIs to achieve academic excellence. Further, there was yet no effective mechanism in monitoring and evaluating the performance of PHEIs to see their relevance to country's development policy and plans.

The private college managers were also asked about the system of personnel evaluation in their institutions. The overwhelming majority of the interviewees answered that performance evaluation was needed for quality assurance purpose. The manager of college E said:

Our institution has a process in place to assure participation evaluation lead to improvement of job performance. There are connections between personal evaluations and institutional effectiveness and improvement. There are also criteria uses to measure the effectiveness of personnel in performing their respective duties. The institutions ensure meaningful evaluations of professional development activities. The institution also evaluate the process that using in human resources.

In addition, college/ university managers also contended that the teachers and tutors play a significant role in producing qualified students and advancing the standard of their institutions. On the other hand, the institution contributed enormously to the improvement of standards by organising discussions, workshops and seminars for students and staff alike. In terms of evaluating the students' outcomes, they emphasized that their institutions were developing their own methods to evaluate the effectiveness in producing students learning outcomes. These methods seemed to yield meaningful and useful results. The private colleges used different methods to assess the students' capabilities and performance as was instructed by experts of assessment and evaluation.

Interestingly, Oman's private higher education institutions, according to the college/ university managers, utilised personnel policies consistently. The ultimate objective of using this kind of policies was to ensure fair treatment of personnel regardless of whatever factors. The policies also helped the administrators to determine sufficiently the kind of support needed for each staff member in their organization. Finally, in relation to staff personal development, the college/ university managers claimed that their respective institutions did provide personal development for their staff, especially for their faculty since their teaching strongly related to the quality of their institutions.

Based on interview and observation data, it could be summarized that while PHEIs acknowledge the difficulty of attracting high level professionals (largely due to the relatively inadequate remuneration packages and work conditions), there are no systematic plans to adopt in-service training as an alternative to fill in the gaps and improve the personnel's capabilities. Some institutions provide financial support for academic activities (participation in conferences), but this incentive does not apply to support and administrative personnel. PHEIs provide no rewards for excellence (best employee of the year/month, bonuses, etc). This failure to acknowledge individuals' initiatives and efforts may have adverse effects on the personnel's sense of belonging.

## 8. Physical Resources

The researcher went to the private colleges/ universities to investigate the quality of physical amenities and buildings. From the observations and interviews with the college/ university managers, the institutions apparently possessed sufficient and appropriate physical resources, including laboratories, materials, equipment, and buildings and grounds. The resources were designed, maintained, and managed at both on- and off-campus sites to serve institutional needs as defined by its mission and purposes. Classrooms, laboratories and other facilities were appropriately equipped and adequate in number and size. The proper management, maintenance, and operation of all physical facilities were accomplished by adequate and competent personnel. The facilities were constructed and maintained in accordance with the legal requirements to ensure access, safety, security, and a healthy environment with consideration for environmental and ecological concerns. Each institution reported to have undertaken physical resource planning, which was linked to academic and student services and financial planning. College management determined the adequacy of existing physical resources and identified and planned the specified maintenance needs. Space planning occurred on a regular basis as part of physical resource evaluation and planning, and was consistent with the mission and purposes of the institution. The president of university B said:

We have sufficient criteria and processes to evaluate the safety of its facilities. We also use current and modern data to determine the sufficiency of their halls, laboratories, and other facilities. We employ effective mechanisms to evaluate how effectively facilities meet the programs and services needs.

Regarding the improvement of existing physical resources and repairing the ones which may fall out of order, managers advocated that the institutions use

the results of facilities' evaluation to make improvements, and employed similar processes to assure the safety and sufficiency of their equipments. The president of university F said:

Our institution considers the needs of program and services when planning our buildings in where we ensure that programs and services needs are determine equipments replacement and maintenance. We also evaluate the effectiveness of facilities and equipments in meeting the need of programs and services. This is in line with the government's call for quality assurance.

From observations, this research found that the basic physical resources (lecture halls, libraries, eateries, sporting facilities, etc) were in place, but they remained largely limited in size and capacity. This was partly due to the fact that many PHEIs are still operating in temporary, inadequate campuses.

In general, the private institutions in Oman operated with the realization of achieving quality assurance for the purpose of accreditation, and thus they felt the obligation to provide the best facilities and services to students. Theoretically, quality instruction and learning and quality graduates were based on the premise of the provision of quality facilities and services.

## 9. Technological Resources

The researcher also investigated the technological resources used for instruction and learning at the eight private institutions. Managers said that the challenge was maintaining and improving the traditional infrastructure while investing in

the most innovative and competitive technology that could make the most impact on quality instruction and learning in an institution. They believed that technology was important; it not only defined how organizations work, but what they could do and achieve, and whether or not colleges would be able to serve better clients in the future.

The managers felt that one could not discount the personal characteristics determining which faculty would make an effective use of information technology in their teaching. In general such individuals are characterized by a high level of energy in other areas, and a passionate commitment to their work. They also asserted that various types of technology needs were identified and effective evaluation was regularly administered to assess their ability to meet the varying demands and range of needs. Furthermore, the institutions had to make accurate decisions about the technology services, facilities, hardwares and softwares. They also emphasized the importance of training.

According to managers of colleges D and H:

The institutions are doing pretty good in relation to the assessment of the needs for information technology training for the students and personnel. We also provide appropriate system of reliability and emergency backup for any crisis. We provide robust and secure technical infrastructure, providing maximum reliability for students and staff. However, we ensure that facilities decisions are emanate from institutional needs and plans for improvement.

However, the managers of institutions A and G made reference to the wide range of obstacles impeding the integration of IT into private colleges. The salient problem was the difficulty in accessing basic technology resources such as workstations and networks was also seen as a significant impediment. A related concern was that technology might not necessarily enhance the quality of instruction, and that those pushing for its adoption might not recognize this

possibility. Moreover, the college managers A and G observed that the lack of training, especially in the substantive issues of how technology may be used, rather than just the mechanics of its use, could be a compounding factor.

It was observed that most of the PHEIs had set up computer terminals and overheads in their lecture halls. However, issues relating to maintenance and reliability of the system remained serious. The subscription to virtual learning systems (e.g. Blackboard) remained sporadic, although there were some plans to adopt them at later stages.

#### 10. Financial Resources

Financial resources undoubtedly constitute a major determinant of an institutions' success or failure. Without solid and stable resources of money, the institution would definitely collapse, irrespective of whether it is private or public. College managers felt that private institutions generally undertook the burden of financing and spending on the institution by providing all the necessary needs such as paying the salaries of their personnel, expanding already existing facilities or building new ones, providing materials (books, computers), paying bills and so on. However, the issue was also very complicated for private institutions, whose only source of income, more often than not, the money generated from the tuition and other fees paid by the students. At many times, the generated money was not enough to pay the salary of both academic and non-academic staff, and to provide high quality infrastructure and sustain the institutions growth and development.

Almost all college/ university managers, however, declared that their institutions had sufficient budget and had in hand enough revenues to conduct



various programs for educational improvements. Presidents of universities B and C said:

Basically institutional plans exist and are linked clearly to financial plans both short term and long term. The financial planning process relied primarily on instructional plan for content and timelines. Our institution can provide evidence that past fiscal expenditures have supported achievement of institutional plans.

Furthermore, they also declared that the financial planning and budget were recorded and made known to the institutions' constituents, and the procedures for reviewing fiscal management were regularly implemented.

#### **4.5.3: Interview Results for Section B**

This section is to answer research question 5, i.e. pertaining to the approaches and techniques in the quality assurance implementation process.

In general, based on conceptual mapping of the interview and observation data, the following list of approaches and techniques were involved in the implementation of quality assurance in private higher education institutions in Oman:

1. Consistency of practice in use of quality procedures
  - Using key performance indicators
  - Continuous curriculum design and development
  - Responsive student support and guidance

- Review of content and organization of instruction and learning

In relation to consistency practice of quality procedures, all the interviewees described the procedures they adopted were effective, efficient, reliable, very good, very important, and consistent. The procedures reflected the vision and mission of the private institutions. They also described the audit procedure as very important, perceiving them as an indication of institutional sincerity and integrity. They also claimed that the preparation for audit is accurate, and sufficient. However, the manager of institution G stated that the audit was not implemented in his institution, calling for urgent attention to complete this essential step.

## 2. Good preparations and outcomes for quality audit

- Student evaluation of staff reports
- Study programs documents and curriculum design
- Assessment and evaluation of student learning—via tests, examinations, assignments
- Good preparation and outcomes for audit is the means for institutional self- evaluation of the institution, which in turn enhances the quality standards

## 3. Good preparation and outcomes for quality assessment

- Answer keys/ optimal solutions
- Samples collection and analyses for the checked example tests
- Different tools for quality assessment gives an indicate regarding advancement , improvement, enhancement or uprooting the quality measure in different areas

4. Better ability to meet monitoring requirements of professional bodies
  - By conducting indoor workshops, seminars, and in-house training
  - Monitoring guides quality improvement and professionalism
5. Better ability to meet monitoring requirements of external examiners
  - External examiners set a standard for quality education
  - Out-sourcing is a better practice for continual improvement
6. Real quality development
  - By applying quality assurances
  - Use of standard operating procedures in any process
  - Emphasizing on best teaching practices
7. Better teamwork/ group learning
  - Can improve the individuals skill (especially for weak student )
  - Motivates the team members to work well in a group
  - Increases communication skill (orally)
  - Improves conversation skill (written )
8. More effective course monitoring
  - Can increase the morale of students.
  - Can make them passionate students and field workers
9. More effective validation of preparation and outcomes
  - Bridges the communication gap between teachers and students
10. More effective review of courses
  - Bring into practice the new advancements in the market.
  - New technologies become endorsed in courses.
  - Scope of jobs for the students increases

#### 11. Improvements for students

- Communicational skills
- Team work
- Effective learning

#### 12. Improvement for staff

- National and international workshops and seminars.
- Indoor workshops and seminars
- On job training.

#### 13. Better student involvement in quality

- Improves QA process
- Improve staff evaluation method for taught courses

#### 14. Better student feedback

- Gives a clear picture of quality
- Becomes a key performance indicator
- Can help in policy-making decisions

#### 15. Improved capability to address 'quality' issues in

non-academic service areas

- As QA is a team work, so non-academic services must be aligned
- Operational/ management areas are also the integral part of Quality Assurance, thus they must match these areas for Quality Improvement

The college/ university managers unequivocally reported good preparation and outcome for quality assessment. The assessment according to the

manager of institution C was utilizing the available data to set the performance and measure the students' academic performance. Regarding the institutions' ability to meet the requirement of professional bodies and external examiners, the interviewees consensually agreed that private institutions had no doubt that they were meeting the requirement of both professional and external examiners. However, the managers of institutions C and G encouraged their respective organizations to do more in order to improve their standards.

Based on the analysis of interview data in this study, it could be summarized that the critical considerations in implementing QA in private institutions were:

- Curriculum Design
- Curriculum Review
- Self evaluations of staff, self evaluations of departments
- Students evaluation and staff

When the college managers were asked about the problems facing QA, one of the interviewees (institution C) cited the lack of continuous internal assessment. Another, (institution H) mentioned the lack of reliable feedback from the stakeholders. A third (institution E) blamed it on the massive financial mismanagement and the last (institution A) referred to the lack of qualified people who could handle the situations. Others avoided answering the questions.

Other problems cited by the managers in implementing QA were:

- Financial resources in private institutions were limited.

- Lack of training and expertise: although some managers were very keen on improving the quality of the departments under their jurisdiction, they lacked the know-how.
- QA was still perceived as a requirement for external examination. Colleges were yet to establish a quality culture where people perceived QA procedures as normal and indispensable components of their work. A lot of people still believed QA was the responsibility of the quality assurance department or committee.

The college managers offered many suggestions on how to improve the standard of non-academic personnel. Institution H, for instance, advocated a strategy of reviewing the services and improving the processes and procedures, while institution D emphasized the importance of efficient communication channels, the contribution from all parts and rewards. Others did not respond to the questions.

Finally, the respondents were asked about the appropriate ways to improve students' abilities. The manager of college H suggested quality teaching and learning methods, while the manager of college C proposed training and teaching processes.

## 4.6: Chapter Summary

In this study, the researcher used both quantitative and qualitative data analyses. All research questions were answered accordingly. The survey data in Parts I and II was analysed using descriptive statistics as well as inferential statistics. The researcher used Principal Component Analysis (PCA) to summarize the items into latent variables and establish their reliability. The Confirmatory Factor Analysis (CFA) was also run to assess the adequacy of the measurement model. The results of both analyses showed that the model was accurate and acceptable. The researcher conducted a multivariate analysis (MANOVA) to interaction effects among variables. The analysis revealed that there was an overall significant multivariate model on four factors of private higher institution subscales on the one hand and gender, college, course and age on the other hand, but insignificant for sponsor.

Meanwhile, the findings of the qualitative part of the study showed that the majority of the interviewees agreed that Oman's private higher education institutions had played significant roles in strengthening the quality of education in the country. Although, the private colleges and universities were relatively new, they were well established based on their mission and vision statements. The private institutions were in general also fairly well governed, had fairly effective management, and provided fairly efficient instructional programs, sound students support services, very well-equipped libraries, and all kinds of resources (e.g. human, physical, technology and financial recourses. Further improvements were needed in many areas of governance and management in the private

institutions, and these posed as the challenges to the private institutions in implementing quality assurance and accreditation policy in Oman.