ADVANTAGES OF IMPLEMENTIG QUALITY MANAGEMENT SYSTEM IN HIGHER EDUCATION

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ABSTRACT

The Quality Management System "QMS" has become a common choice of strategic management tools in the higher education setting. Consequently, implementation of QMS is critical in confirming the effective and efficient implementation of work process and procedures to achieve the college goal to provide the educational services to various stakeholders.

The main purpose is to study the implementation of ISO and the benefits that the department has gained from implementing the system. Consequently to help colleges/universities in implementing QMS. Finally, to examine implementation of QMS as a real time solution to maintain accurate documentation and records.

This paper presents description of the process of implementing quality management system according to ISO 9001: 2008 standard, which has the noteworthy impact on improving the quality of delivery of education. This research presents the reasons that necessitate a system for standardization of the processes within any educational department and the steps taken in the implementation of a quality server for distribution, monitoring and collecting documents and guidelines. In this study, descriptive approach was used through field survey that was associated with a guided and quick collection, analysis and interpretation of observation.

The results of this research provided valued insight into the potential application of ISO 9001:2000 to our college and other educational organizations as a methodology for continuous improvement of student satisfaction of the delivered services. Results showed increase in students' satisfaction with business department management and delivery of education by faculty. Faculties in the business department adopted the QMS and utilize the system in areas of communicating effectively with higher management, standardizing the course delivery, and documentation of needed resources of each course regularly.

The implementation of quality management systems requires continuous effort, sustained leadership, and the long term commitment of resources and regular auditing of performance. It also provides significant implications for practitioners and academics to facilitate the implementation of ISO 9000.

This study adds to the body of knowledge concerning implementation of ISO 9000 in an educational institution. It also contributes to the development of the literature by providing a set of motivation factors and of critical success factors that can assist practitioners to effectively implement the standard.

Keywords: Quality management system, implementing quality system, process standardization, higher education, ISO 9001:2000.

INTRODUCTION:

In response to globalization and due to the standardization and requisite of quality objective, there is a pervasive interest in the ISO 9001:2000. In particular, it focuses on the benefits and success factors in adopting ISO 9001:2000. It is trusted that the study findings may contribute to the constant debate on this area and, thus, may help other colleges, universities and teachers to maximize benefits, anticipate issues and develop strategies towards a firm implementation of this standard.

The QMS has become a common choice of strategic management tools in the higher education setting. Consequently, implementation of QMS is critical in confirming the effective and efficient implementation of work processes and procedures to achieve the college goal to provide the educational services to various stakeholders.

The education and educational organizations are experiencing extraordinary changes in established systems and delivery technologies, customer needs, and also government prospects (Prabhu, Appleby, Yarrow, & Mitchell, 2000); (Piskar & Dolinsek, 2006). In the perspective of higher education, a perceptible trend is in place i.e., increasing competition among universities and higher education institutions are attracting students across the globe. 'Quality' has risen as a theme employed as they compete with each other (Sohail, Rajadurai, & Abdul-Rahman, 2003).

LITERATURE REVIEW:

Previous research on the implementation of ISO 9000 in education can be classified under four categories: the significance of ISO 9000 to education (Welch, 1998); (Peters, 1999); (Waks & Frank, 1999); (Mc Adam & Welsh, 2000) benefits and limitations of ISO 9000 (van den Berghe, 1997); (Moreland & Clark, 1998); (Peters, 1999); (Waks & Frank, 1999); (Zuckerman & Rhodes, 2000); (Ayudhya, 2001); (Chan & Lai, 2002); (Mc Adam & Welsh, 2000); (Sohail, Rajadurai, & Abdul-Rahman, 2003); (Stimson, 2003); (Bevans-Gonzales & Nair, 2004); (Singh & Sareen, 2006) implementation issues of ISO 9000 (van den Berghe, 1997); (Moreland & Clark, 1998); (Peters, 1999); (Zuckerman & Rhodes, 2000).

Generally, there is a paucity of empirical studies about the implementation of ISO 9000 in educational institutions. Moreover, most of the existing empirical studies refer to the 1994 version of this standard, although there are a few exceptions (Singels, Ruel, & Van De Water, 2001); (Thonhauser & Passmore, 2006). This research is a further progress to understand the benefits and success factors of ISO 9000 in educational institutions.

Motivation for ISO 9000 Certification and Implementation Effort of ISO 9000 QMS:

Motivation for ISO 9000 certification is one of the factors that can impact the implementation of ISO 9000 QMS and the performance of ISO 9000 certified organizations (Sun, 2000); (Huarng, Horng, & Chen, 1999); (Singels, Ruel, & Van De Water, 2001); (Gotzamani & Tsiotras, 2002); (Tsinidou, Gerogiannis, & Fitsilis, 2010); (Prajogo, 2011). Some researchers (Escanciano, Fernández, & Vázquez, 2001); (Zaramdini, 2007); (Dissanayaka, Kumaraswamy, Karim, & Marosszeky, 2001) listed all the necessary inspiration factors in their studies.

The two main motivating factors to implement ISO-9000 in a college's business department in the United Arab Emirates are the need to maintain consistent delivery despite high rate of faculty turnover and; to comply the face of frequent changes in policies and regulations. The QMS provided a platform for easy updating and accessing the latest rules and regulations.

As a result of high faculty turnover (Gulf Talent Report, 2015), groups of new faculty join the department every term. There is a need to familiarize the newcomers with the processes as well as providing them with teaching material that has been used in previous terms to help them update the existing and create new material for teaching and assessment. The QMS provides a standardized depository platform for all courses where all faculty upload the documents they have used and created for each course for every semester. The uploaded documents are monitored for quality and compliance with policies and requirements. The repository contains three years of records that encompasses teaching and assessment materials for all courses and is available online for all teachers in the department. As new teachers have easy access to these documents, they are able to learn the processes and the delivery expectations easily and quickly.

A Review of QMS Applications in Academic Institutions:

Early studies on demonstrating the return of quality investments in academic institutions were discussed by (Weller, 1996). A study by (Weller, 1996) insisted that quality programs are not free and the concept of accountability is ever present in the minds of state holders who demand positive returns on their investments.

A study by (Mehralizadeh & Safaeemoghaddam, 2010) found that no clear evidence of TQM systems in higher education approved effectiveness and performance improvements though academic institutions are driven to engage in quality applications. They revealed that quality systems are not often socially acceptable, do not follow a clear philosophy and theory, do not show the productivity of institutions, are less progressive, have low harmonies, and unrealistically publicized but in terms of individualized aspects. However, the study found out there are some supportive successful cases applied in non-academic higher education which should not be the best practices in academic sector.

A recent study conducted by (Remington-Doucette, Hiller Connell, Armstrong, & Musgrove, 2013) measured sustainability competencies mainly for undergraduate business majors in which the study results found that there are no clear improvements and applications on key business competencies. However, the paper shed light on how long term sustainability and quality programs are important in creating more effective academic programs. The study emphasized the dynamics rather than static nature of QMS applications in business departments.

Assessing students' satisfaction when joining transnational higher education (a case study from the UAE) and categorizing QMS priorities in such programs were investigated by (Wilkins & Balakrishnan, 2013). The study revealed that levels of satisfaction at UAE branch campuses were generally high. The factors that were most influential in determining 'whether or not a student at UAE was satisfied overall with their institution' were quality of lecturers, quality and availability of resources, and effective use of technology and quality measurements. The study indicated the high extent of remaining scope for UAE to further increase the satisfaction level and departments' chairs might identify areas for improvements through clear KPIs demonstrations.

Quality factors to enhance performance at academic institutions were identified by (Tsinidou, Gerogiannis, & Fitsilis, 2010). The study weighted relativity of factors that contribute to the quality of educational services as it is perceived by students and measuring these factors. Students' preferences, training teachers in communication skills, using interaction skills in the class room, availability of textbooks and journals at libraries, advanced laboratories and provides graduates with better career prospects are main criteria measuring quality in higher education institutions.

To conclude and as can be seen from the above reviews there is little discussion about how the data and the performance results should be analysed, interpreted and used to make improvements within an academic unit (i.e. business departments in the UAE). These will be clearly measured in this study through teachers, students, and senior level managers at the business department in the institution.

RESEARCH METHODOLOGY:

In this study, the descriptive approach was used through field survey that aims to describe the reality of applying the principles of Total Quality Management from the point of view of faculty members, students, and management and then analyze, interpret and reach the conclusions and recommendations. The study will seek to establish the factors that influence Implementation of TQM. A survey design (Appendix A) is associated with a guided and quick collection of data analysis and interpretation of observation (Mugenda & Mugenda, 1999). The case study method is characterized by many advantages as it requires the use of more than one scientific method of research to gain access to the most accurate results (Kothari, 2004). The data collected will be coded, and analyzed through SPSS (Statistical Package For Social Sciences). Descriptive statistics such as percentages, means and Standard Deviation will be used to designate the factors influencing implementation of TQM.

OBJECTIVES:

The main objectives of this study are to study the implementation of ISO and the benefits that the department has gained from implementing the system. Following four propositions were considered when implementing QMS in the business department.

P1: Improving the satisfaction of the students with their teaching and learning experience
P2: Improving the satisfaction of the business faculty with teaching, learning, and the department management
P3. Adequately measuring the performance of the business faculty
P4: Successful management of the business department

So as to prove these propositions, the department has implemented a comprehensive Quality Manual and a related real-time online QMS, and surveyed its business faculty and students at the end of each academic year from August 2011 till August 2014; analyzed the results and introduced improvement actions (see table 1, below).

Table 1: Time Line of the Project at the College

Aug 2011	V1 of the Quality Manual – series of discussions
Feb 2012	V2 of the Quality Manual – series of discussions
Aug 2012	V3 of the Quality Manual - implementation
Dec 2012	Stage 1 Documentation Audit by BSI
Mar 2013	Stage 2 Implementation Audit by BSI
May 2013	FIRST MAJOR SURVEY
Aug 2013	V4 of the Quality Manual
Jan 2014	Surveillance Visit by BSI
May 2013	SECOND MAJOR SURVEY
Aug 2014	V5 of the Quality Manual

The surveys have been analyzed by appropriate statistical tools to see if 'before and after outcomes' are significantly different, or not.

Implementing ISO-9000 required several steps. The most time consuming one was developing a comprehensive quality manual for the day to day processes in the department. The completed manual was reviewed by the faculty teams and was revised a few times to ensure clear and comprehensive procedure outlines and forms. Once completed, the manual and the related forms were published on the business department's QMS. To ensure successful adoption of the system, several training sessions were scheduled for the faculty and expert individuals were identified for trouble shooting and support. The utilization of the system was monitored to identify demand for additional training.

Surveys were developed and used for data collection to identify the areas of impact and measure the level of impact after the utilization of the system. These surveys were designed to collect data regarding faculty's perception as well as student's. The surveys were tested for reliability and validity a head of time. A survey instrument was developed and used to collect data. The survey items were composed and developed in Arabic language based on the review of related research literature of TQM. The surveys were posted on the QMS and all students and faculty were asked to respond to the questions at the end of the academic year 2014

Adopting and implementing QMS at higher education organization, Business Department, has been generally accepted by relevant stakeholders: students, faculty, and senior management. Results showed improvement from 2013 to 2014 academic year in students' satisfaction mainly in learner-centered education (see appendix B), fast response and communications, students' feedback to be taken into consideration and share resources with students including latest technologies BbLearn, laptop and Ipad. The consistency of delivery methods and application of the rules may be the contributing factors for this increase.

Need for Standardization and Rapid Update of Procedures:
Policies and regulations implemented in the UAE come from four different sources. The top level is the Ministry of Higher Education and Scientific Research. The next level down is the college Central Academic Services; their mandates and regulations are observed by other colleges across the country (Zarmadini, 2017). However, the college and the business department have adopted policies and rules that are relevant to the campus and department to best serve the students. The result is multiple records that changes frequently. Therefore, implementation of QMS provided not only a platform for maintaining and updating the latest version of the documents but also an easy access for referencing and applying the correct policy and rule.

Some Important Steps:
The ISO 9001:2008 initiative is the strategic goal of the business department of the college. It means that it is not the college that has received the certification, it is just a single academic department within a large organization that has gone through the process successfully. Consequently, in a learning organization structure, the successful implementation of ISO on business department can be considered as the pilot test for other departments in other colleges.

Interpretation of the ISO Terminology:
The business department need to adapt the terminology of the standards to its special unique situation.

Internal Auditors:

As ISO 9001 requires regular Internal Audits, one of the first tasks was to provide awareness training for all members of the business department, and then train as many ISO 9001:2008 Internal Auditors and Lead Auditors as possible. As the department is relatively small compared to large organizations that usually opt for ISO 9001:2008, it meant that almost everybody have to be trained.

Buying In:

The initial version of the Quality Manual, V1 in Aug 2011, presented to the business department by the Program Chair contained over 60 Processes and 60 Forms created a great resistance, until teams have been formed and tasked to review every single process and form and make recommendation for improvements.

ISO 9001:2008 – specifies several areas of how the organization, i.e. the business department should be managed by the Management Team, but it leaves the details of the 'product realization' open for the organization to define. Soon the members of the department realized that although higher education organization and the business department in this organization had several educational policies, not all details of the education processes have been defined, and there were lots of opportunities for standardization. Examples include agreeing on processes related to the focus of delivery, use of educational technology, make-up exams, re-sits, assessment pre- and post-moderation, etc. By agreeing in all these details all members of the department offered the services in the same way, so these aspects of the delivery stopped being differentiators when students evaluated the faculty.

The revision of all the initial processes resulted decrease of processes and forms to approximately 30. After the business department passed both the Documentation Audit and the Implementation Audit, the efforts were announced to the students. Since then, the Quality Manual has continuously been evolved, but there has only been one opportunity to measure the customer satisfaction, a year later when second major survey was conducted using stratified random sampling.

Structure of the Quality Manual:

For the purpose of providing high quality services to its students, the Department has developed a comprehensive Quality Manual that integrates all the rules of the ISO 9001 with the regulations, policies, procedures and rules that affect the business department.

FINDINGS:

Results also showed the students' satisfaction level with department management increased after the implementation of the QMS. This increase can be due to transparent and easy access to rules and regulations by which the department provides service to the students. It may also be due to increased awareness of the students regarding the governing rules and their realistic expectations as a result. By the same token, faculties in the business department have appreciated the adoption of ISO 9001:2008 in areas of communicating effectively with higher management, standardizing the course delivery, and documentation of needed resources of each course regularly.

The results also showed that the introduction of an ISO 9001:2008 compliant methodology for continuous improvement which can improve the educational services. The integrated online real-time QMS, developed by the business department, has provided unprecedented transparency in department, and surveys results revealed high acceptance level both by faculty and students.

As a result of having an ISO 9001:2008, the business department;

- Has a smooth orientation process, new faculty would know the requirements of the expectations precisely
- Department functions have been decentralized, academic coordinators, course team leaders and section leaders help the management of the department
- Students satisfaction has grown as a result of the consistency of delivery of education by the faculty
- The number of serious complaints have gone done drastically, in several semesters to even zero

The business department used surveys to obtain feedback from its students. First measurement set a base; and next measurements showed certain improvements based on the requirements of a subsequent Management Review (see table 2, below).

The department has achieved this objective, see paired two sample t-test results comparing the average score of the answers for the 44 questions of the major student surveys conducted in May 2013, and May 2014. The proposition was that mean score of the student answers improved, and the extremely low p-value of 2.23 E-19 strongly supports this hypothesis.

Table 2: Student Survey Results

t-Test: Paired Two Sample for Means		
	6.37254902	7.826086957
Mean	5.083725934	6.417808754
Variance	0.747051026	0.645417795
Observations	44	44
Pearson Correlation	0.763778518	
Hypothesized Mean Difference	0	
df	43	
t Stat	-15.36356815	
P(T<=t) one-tail	2.25953E-19	
t Critical one-tail	1.681070703	
P(T<=t) two-tail	4.51907E-19	
t Critical two-tail	2.016692199	

The business department used surveys to obtain feedback from its faculty. First measurement set a base; and next measurements showed certain improvements based on the requirements of a subsequent Management Review (see table 3, below)

The department has achieved this objective, see paired two sample t-test results comparing the average score of the answers for the 44 questions of the major faculty surveys conducted in May 2013, and May 2014. The hypothesis was that the mean value of the faculty answers has been improved, and a p-value of 5.81 E -15 provides strong statistical evidence supporting it.

Table 3: Faculty Survey Results

t-Test: Paired Two Sample for Means		
	5.652173913	7.826086957
Mean	2.438690262	6.417808754
Variance	3.849152479	0.645417795
Observations	44	44
Pearson Correlation	-0.255597917	
Hypothesized Mean Difference	0	
df	43	
t Stat	-11.46470575	
P(T<=t) one-tail	5.81052E-15	
t Critical one-tail	1.681070703	
P(T<=t) two-tail	1.1621E-14	
t Critical two-tail	2.016692199	

The second set of Quality Objectives are related to the efficiency and effectiveness of the Quality Management System; it was measured through department meeting discussions where the general consensus of the faculty was that the QMS has been improving continuously and helping them to perform their tasks more efficiently.

The third set of Quality Objectives is related to the Quality Indicators (QIs) that measured faculty performance, teaching, Faculty Evaluations by Students, Class Observation by Supervisor, Resources and Course Assessment Folders "CAF". To meet expectations, faculty had to reach 70%; however, to exceed expectation they had to reach 85% score on the related questionnaire. Research and Professional Development, College Duties and Community Services, Department and College Duties, Community Interaction. The meet-target was 50%; however, the exceed-target was 70% for these questions. The Quality Objective target values were the first year's measurement established a base that the management decided to meet or exceed next year. Early indications showed improvement. The department has achieved this objective, see statistical results of the survey below (see table 4, below).

Table 4: Improvement of the Quality Indicators

Weight	Date	May 2013	Average	St.Dev	MEET (%)	EXCEED (%)	Meet	Exceed
2	1	Quality Indicator 1: Faculty Evaluations by Students: 0-100% (Weight 2; Max 20 Points).	● 18.3	2.1	70	85	14	17
2	2	Quality Indicator 2: Class Observation by Supervisor: 0-10 points. (Weight 2; Max 20 Points)	● 19.1	1.4	70	85	14	17
1	3	Quality Indicator 3: Course Folders Evaluations: 0-10 points. (Weight 1; Max 10 Points).	● 9.7	0.4	70	85	7	8.5
2	4	Quality Indicator 4: Professional Development and Research: 0-10 points. (Weight 2; Max 20 Points)	● 6.9	3.6	50	70	10	14
2	5	Quality Indicator 5: Department or College Duties, Response the Administrative Tasks (Weight 2; Max 20 Points):	● 10.5	2.3	50	70	10	14
1	6	Quality Indicator 6: Community Interaction: 0-100%. (Weight 1; Max 10 Points).	● 2.5	2.0	50	70	5	7
10		TOTAL					60	77.5

Weight	Date	May 2014	Average	St.Dev	MEET (%)	EXCEED (%)	Meet	Exceed
2	1	Quality Indicator 1: Faculty Evaluations by Students: 0-100% (Weight 2; Max 20 Points).	● 18.6	1.2	70	85	14	17
2	2	Quality Indicator 2: Class Observation by Supervisor: 0-10 points. (Weight 2; Max 20 Points)	● 18.5	1.2	70	85	14	17
1	3	Quality Indicator 3: Course Folders Evaluations: 0-10 points. (Weight 1; Max 10 Points).	● 9.8	0.5	70	85	7	8.5
2	4	Quality Indicator 4: Professional Development and Research: 0-10 points. (Weight 2; Max 20 Points)	● 13.2	3.4	50	70	10	14
2	5	Quality Indicator 5: Department or College Duties, Response the Administrative Tasks (Weight 2; Max 20 Points):	● 10.5	3.9	50	70	10	14
1	6	Quality Indicator 6: Community Interaction: 0-100%. (Weight 1; Max 10 Points).	● 5.9	1.7	50	70	5	7
10		TOTAL					60	77.5

Real Time QMS:

Figure 1: Components of the QMS

The business department has decided to setup its QMS on a web application on a subdomain of the college. From this site all components of the QMS can be reached. The QMS uses a discussion board that has several components, such as static pages, download center, member's blog, and photo gallery (see figure 1, above). This web site seems to be useful and it efficiently performs the following functions:

- It is a repository of all Controlled Documents of the Department. It shows the responsibilities and the tasks according to the Clauses of the ISO 9001:2008 Standards, but it also separates the tasks and shows the responsibilities of the Department Management and Faculty separately.
- As a discussion board, all parts of the Quality Manual can be commented by any members of the department, and all recommendations for improvements are automatically recorded for further analysis.
- A web application, QMS components can be reached by a hyperlink. It is extremely useful at the time of Internal and External Audits, or when preparing for Management Review Meetings.

QMS shows all "recent Topics" or "Hot Topics" to the visitors, and it organizes the information in five main categories:

- General Discussions
- Guidelines: Controlled Documents
- Evidence Controlled Records - Management Responsibility
- Evidence: Controlled Records -Faculty Responsibility

- Evidence: Performance Evaluation - Joint Responsibility

CONCLUSIONS:

This study was carried out to investigate ISO 9001: 2000 implementation in Higher Educational organizational unit, at the business department of one of the Higher Educational Institutions, UAE. The state of implementation of ISO 9000 in different countries is reported in many academic articles. However, relative to the UAE, a paucity of research does exist. Our findings suggest that the certified organizations have benefits.
UAE is promising to be one of the most competitive economic environments in the world. Therefore the UAE firms, profit and non-profits organization are keen to implement a reliable Quality Management System, and education should not be an exception. The ISO 9001 certification can help all organizations in achieving their quality targets.
Top management commitment followed by developing a well-structured system of procedures and processes jointly with the faculty body were factors which contributed to the successful implementation of ISO 9001:2008.

RESEARCH LIMITATIONS AND PRACTICAL IMPLICATIONS:

This study is limited to the business department of one of the UAE Higher Educational Institution, which has implemented an ISO 9001:2008 compliant program on its own initiative. It is worth's to mention, however, that business departments in other colleges have already expressed interest in adapting the same approach, and implement a similar QMS.
However, there may be variances in the level of knowledge possessed by the participants, systematic variances in the research results may be present. An interesting area of further research would be improvement actions taken at colleges and universities afterward. This study will contribute in several ways:

- First, knowledge gained from this study will be valuable to other colleges and universities in the UAE and the Gulf. This is one of the reasons to participate in this conference.
- Second, it will be of great help to colleges and universities that are planning to implement ISO 9000:2008; it can serve as a guideline methodology for the top managers of these educational institutes to effectively plan and apply the new standard based on results extracted from business department of the college that have common factors and share similar cultural needs.
- Third, the results of this research can benefit the quality practitioners in the United Arab Emirates, and in the neighboring countries, and help them understand the roles they should play during the stages of implementation.
- Fourth, the findings of this research will benefit researchers with an empirical study of the implementation of ISO 9000:2000 in UAE as a developing country and may lead to further studies in other developing countries.
- Fifth, the study will identify significant research issues and offer promising new directions for further research.

The practical implications of this study are as follows:
The ISO 9001: 2000 certification has delivered important benefits to the certified college, which is one of the colleges of a large system of interrelated higher educational institutions in the UAE. The business department of the certified college has obtained positive and interesting results because they had the right motives, and they have come up with an innovative solution to implement ISO 9001:228 and an online QMS. Now the ISO 9001: 2000 certification has been used as a marketing tool and has thus improved the certified college public image. Finally the ISO 9001: 2000 certification is just the first step in the quality ladder. Indeed, the business department should continue their efforts relentlessly in order to attain and sustain organizational excellence (Dale and Lascelles, 1997).

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APPENDIX A

The Questions of the Student/Faculty Surveys contained 5 possible answers on a Likert scale: Strongly Agree, Agree, neutral, Disagree, Strongly Disagree. The results of the answers were translated to a numerical value for each question assigning [-10, -5, 0. +5, +10] values for each answer, and then calculated the average of the answers of the respondents.

ISO 9001:2008 General Faculty Survey
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	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The Department Management is friendly and supportive	O	O	O	O	O
The Department Management communicates the higher management requirements effectively	O	O	O	O	O
The Department priorities are clearly communicated in the Quality Management System	O	O	O	O	O
I appreciate the Department initiatives for standardization and quality improvements	O	O	O	O	O
I enjoy being involved in ISO 9001:2008 certification project	O	O	O	O	O
The Management listens to faculty recommendations and ready to modify processes and forms if needed	O	O	O	O	O
My course allocations are usually satisfactory	O	O	O	O	O
My time tables usually reflect my preferences	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Members on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The first set of questions is related to Faculty Satisfaction with the Department Management. (2/6).

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The way how more and more the teaching and learning process is centrally designed is welcome	O	O	O	O	O
The Department Management monitors the teaching and learning process efficiently	O	O	O	O	O
I am familiar with my performance indicators	O	O	O	O	O
I prefer quantitative performance indicators to qualitative ones	O	O	O	O	O
I like to have detailed instructions on how to perform my tasks, because it sets the requirements clear	O	O	O	O	O
I get sufficient professional development to be perform my daily tasks efficiently	O	O	O	O	O
I get sufficient support to conduct research and perform additional duties	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Members on the Management, Teaching and Learning, and Support Services

regularly. This is a complete anonymous survey running on external servers. The second set of questions is related to Faculty Satisfaction with Teaching and Learning. (3/6)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
My students are well disciplined and respectful	O	O	O	O	O
I enjoy teaching Emirati students	O	O	O	O	O
I have sufficient tools to motivate my students	O	O	O	O	O
The prior knowledge of my students is sufficient to follow my courses	O	O	O	O	O
The Course Outlines are clear and well written, and the time is sufficient to deliver all learning outcomes	O	O	O	O	O
The course resources are adequate and appropriate to the level of the students	O	O	O	O	O
The delivery requirements are clear to me at the beginning of the semester	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Members on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The second set of questions is related to Faculty Satisfaction with Teaching and Learning. (4/6)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The requirements related to how to deliver a course in the classroom are adequate	O	O	O	O	O
The requirements related to how to design, conduct and moderate assessments are appropriate	O	O	O	O	O
The requirements related to how to provide feedback to my students are clear	O	O	O	O	O
The documentation requirements to manage a course (Syllabus, Attendance, CAF Folder, Course Evaluation, Grade Report) are reasonable	O	O	O	O	O
I think monitoring grade lifting is a valuable exercise	O	O	O	O	O
I think the college's grade distribution policy is correctly defined	O	O	O	O	O
I am satisfied with the progress my students make in my courses	O	O	O	O	O
I think more work related learning opportunities would enhance the programs	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Members on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The last set of questions is related to Faculty Satisfaction with Support Services. The key question here is: Do they influence our teaching negatively? (5/6)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
My accommodation is great and I am satisfied with the housing provided	O	O	O	O	O
The college HR Department responds efficiently to my requests	O	O	O	O	O
The classroom facilities are great and adequately support student learning	O	O	O	O	O
The Library facilities greatly support my preparation for classes	O	O	O	O	O
My laptop/iPad is excellent and help my work a lot	O	O	O	O	O
The wireless network is strong everywhere in the college	O	O	O	O	O
The college printers work very well	O	O	O	O	O
Kinko Photocopy services are useful	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Members on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The last set of questions is related to Faculty Satisfaction with Support Services. The key question here is: Do they influence our teaching negatively? (6/6)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The Blackboard 9 services are reliable and easy to use	O	O	O	O	O
The IT Support is fast and reliable	O	O	O	O	O
The Education Technology department helps to improve my technical skills as needed	O	O	O	O	O
Academic Services organize my invigilation efficiently	O	O	O	O	O
Student Services provide interesting extracurricular programs on campus	O	O	O	O	O
It is great to have VIP events on campus all the time that students can attend to extend their learning	O	O	O	O	O
I think we have a great campus life that both faculty and students can enjoy	O	O	O	O	O

ISO 9001:2008 General Student Survey
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The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Customers, i.e. the Students, on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The first set of questions is related to Student Satisfaction with the Department Management. (1/5)

	Strongly Agree	Agree	Do Not Know	Disagree	Strongly Disagree
The Management is friendly and respectful	O	O	O	O	O
The Management of the Department cares about our studies and provides good academic advice	O	O	O	O	O
The Assistants at the Department are very efficient and helpful	O	O	O	O	O
If I have a problem the Management helps and supports me	O	O	O	O	O
The Management monitors the performance of the teachers efficiently	O	O	O	O	O
The Management considers my special requests	O	O	O	O	O
The Management investigates my complaints and provides feedback for me	O	O	O	O	O
My feedback is taken into consideration	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Customers, i.e. the Students, on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The second set of questions is related to Teaching and Learning and continues on three pages (2/5) (3/5) and (4/5). This is page (2/5)

	Strongly Agree	Agree	Do Not Know	Disagree	Strongly Disagree
I like learning at this Campus	O	O	O	O	O
The classes start and finish at the right time	O	O	O	O	O
I usually like my time tables	O	O	O	O	O
I would like to control more which courses I take every semester	O	O	O	O	O
I get a course delivery plan from all my teachers at the beginning of the semester	O	O	O	O	O
A good teacher has high expectations, but also teaches a lot	O	O	O	O	O
A good teacher is flexible with the course delivery and assessment deadlines	O	O	O	O	O
Teachers make my classes interesting	O	O	O	O	O
The courses I study are useful for my current job or career plan	O	O	O	O	O
The course resources are interesting and easy to read	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Customers, i.e. the Students, on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The second set of questions is related to Teaching and Learning and continues on three pages (2/5) (3/5) and (4/5). This is page (3/5)

	Strongly Agree	Agree	Do Not Know	Disagree	Strongly Disagree
I am familiar with the assessment strategy of the course at the beginning of the semester	O	O	O	O	O
I get my results soon after the assessments have been completed	O	O	O	O	O
I can discuss my performance issues with my teacher frankly	O	O	O	O	O
Teachers provide detailed feedback about my progression and explain why I receive certain grades	O	O	O	O	O
If I need extra support, the teachers are available outside the class hours	O	O	O	O	O
Teachers use all kinds of technology in class	O	O	O	O	O
I think classroom technology helps student learning	O	O	O	O	O
I would like more like mobile technology (SmartPhones, Tablets) used for learning	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Customers, i.e. the Students, on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The second set of questions is related to Teaching and Learning and continues on three pages (2/5) (3/5) and (4/5). This is page (4/5)

	Strongly Agree	Agree	Do Not Know	Disagree	Strongly Disagree
Teachers use Blackboard Learn to share resources with students	O	O	O	O	O
Teachers accept project assignments only through Blackboard Learn	O	O	O	O	O
I use SafeAssign plagiarism software to submit my projects	O	O	O	O	O
I like using Blackboard Learn	O	O	O	O	O
I prefer online tests to paper based exams	O	O	O	O	O
I prefer case studies or projects to traditional textbook exams	O	O	O	O	O
I like multiple choice questions	O	O	O	O	O
I prefer group work to individual tasks	O	O	O	O	O
I am satisfied with my grades	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Customers, i.e. the Students, on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The last set of questions is related to Support Services. (5/5)

	Strongly Agree	Agree	Do Not Know	Disagree	Strongly Disagree
The college classroom facilities are great	O	O	O	O	O
The sporting facilities are sufficient for my needs	O	O	O	O	O
The IT Support Department is friendly and efficient	O	O	O	O	O
My laptop/iPad contains all the programs I need for my studies	O	O	O	O	O
The wireless network is great everywhere in the college	O	O	O	O	O
I can find what I need in the Library	O	O	O	O	O
The reference librarians provide great support for my projects	O	O	O	O	O
I Kinko photo copy service is excellent	O	O	O	O	O
Academic Services if friendly and helpful	O	O	O	O	O
Students Services provide interesting extracurricular programs	O	O	O	O	O

The Business Department operates under an ISO 9001:2008 compliant Quality Management System that requires feedback from its Members on the Management, Teaching and Learning, and Support Services regularly. This is a complete anonymous survey running on external servers. The first set of questions is related to Faculty Satisfaction with the Department Management. (1/6).

APPENDIX B

The Improvement Index is obtained by [Max-New Value]/[Max-Old value] -1 expressed as a percentage, then Excel's conditional formatting was used to highlight the largest and smallest changes with green and red color. All numbers above 0 mean improvement from the previous survey, larger Index values mean relatively large improvements in perceptions.

		Improvement Index
Student Satisfaction with Management	The Management is friendly and respectful	8.878%
	The Management of the Department cares about our studies and provides good academic advice	4.390%
	The Assistants at the Department are very efficient and helpful	9.840%
	If I have a problem the Management helps and supports me	11.132%
	The Management monitors the performance of the teachers efficiently	14.449%
	The Management considers my special requests	12.315%
	The Management investigates my complaints and provides feedback for me	12.415%
	My feedback is taken into consideration	13.424%
Student Satisfaction with Teaching and Learning	I like learning at the college	5.582%
	The classes start and finish at the right time	10.321%
	I usually like my time tables	6.207%
	I would like to control more which courses I take every semester	4.728%
	I get a course delivery plan from all my teachers at the beginning of the semester	11.039%
	A good teacher has high expectations, but also teaches a lot	7.999%
	A good teacher is flexible with the course delivery and assessment deadlines	13.077%
	Teachers make my classes interesting	12.822%
	The courses I study are useful for my current job or career plan	6.052%
	The course resources are interesting and easy to read	8.282%
	I am familiar with the assessment strategy of the course at the beginning of the semester	7.331%
	I get my results soon after the assessments have been completed	4.715%
	I can discuss my performance issues with my teacher frankly	7.078%
	Teachers provide detailed feedback about my progression and explain why I receive certain grades	8.646%
	If I need extra support, the teachers are available outside the class hours	10.202%
	Teachers use all kinds of technology in class	4.329%
	I think classroom technology helps student learning	5.281%
	I would like more like mobile technology (SmartPhones, Tablets) used for learning	0.891%
	Teachers use Blackboard Learn to share resources with students	3.816%
	Teachers accept project assignments only through Blackboard Learn	8.773%
	I use SafeAssign plagiarism software to submit my projects	16.395%
	I like using Blackboard Learn	5.988%
	I prefer online tests to paper based exams	9.323%
	I prefer case studies or projects to traditional textbook exams	10.638%
	I like multiple choice questions	7.722%
	I prefer group work to individual tasks	10.858%
	I am satisfied with my grades	16.190%
Student Satisfaction with Support Services	The college classroom facilities are great	11.827%
	The sporting facilities are sufficient for my needs	9.670%
	The IT Support Department is friendly and efficient	15.045%
	My laptop/iPad contains all the programs I need for my studies	17.810%
	The wireless network is great everywhere in the college	1.199%
	I can find what I need in the Library	5.072%
	The reference librarians provide great support for my projects	9.146%
	I Kinko photo copy service is excellent	3.927%
	Academic Services if friendly and helpful	13.671%
	Students Services provide interesting extracurricular programs	4.846%

Faculty Satisfaction with Management	The Department Management is friendly and supportive	18.904%
	The Department Management communicates the higher management requirements effectively	14.624%
	The Department priorities are clearly communicated in the Quality Management System	1.877%
	I appreciate the Department initiatives for standardization and quality improvements	15.983%
	I enjoy being involved in ISO 9001:2008 certification project	30.189%
	The Management listens to faculty recommendations and ready to modify processes and forms if needed	16.667%
	My course allocations are usually satisfactory	13.175%
	My time tables usually reflect my preferences	9.524%
Faculty Satisfaction with Teaching and Learning	The way how more and more the teaching and learning process is centrally designed is welcome	57.494%
	The Department Management monitors the teaching and learning process efficiently	21.169%
	I am familiar with my performance indicators	18.215%
	I prefer quantitative performance indicators to qualitative ones	4.778%
	I like to have detailed instructions on how to perform my tasks, because it sets the requirements clear	11.806%
	I get sufficient professional development to be perform my daily tasks efficiently	16.569%
	I get sufficient support to conduct research and perform additional duties	38.426%
	My students are well disciplined and respectful	39.136%
	I enjoy teaching Emirati students	7.698%
	I have sufficient tools to motivate my students	9.524%
	The prior knowledge of my students is sufficient to follow my courses	22.767%
	The Course Outlines are clear and well written, and the time is sufficient to deliver all learning outcomes	32.600%
	The course resources are adequate and appropriate to the level of the students	25.321%
	The delivery requirements are clear to me at the beginning of the semester	21.389%
	The requirements related to how to deliver a course in the classroom are adequate	21.494%
	The requirements related to how to design, conduct and moderate assessments are appropriate	25.455%
	The requirements related to how to provide feedback to my students are clear	17.304%
	The documentation requirements to manage a course (Syllabus, Attendance, CAF Folder, Course Evaluation, Grade Report) are reasonable	1.789%
	I think monitoring grade lifting is a valuable exercise	36.693%
	I think college's grade distribution policy is correctly defined	43.611%
	I am satisfied with the progress my students make in my courses	4.892%
	I think more work related learning opportunities would enhance the programs	11.290%
Faculty Satisfaction with Support Services	My accommodation is great and I am satisfied with the housing provided	10.153%
	The college HR Department responds efficiently to my requests	23.131%
	The classroom facilities are great and adequately support student learning	17.130%
	The Library facilities greatly support my preparation for classes	14.087%
	My laptop/iPad is excellent and help my work a lot	19.792%
	The wireless network is strong everywhere in the college	23.519%
	The college printers work very well	18.651%
	Kinko Photocopy services are useful	1.823%
	The Blackboard 9 services are reliable and easy to use	21.494%
	The IT Support is fast and reliable	16.503%
	The Education Technology department helps to improve my technical skills as needed	15.000%
	Academic Services organize my invigilation efficiently	2.679%
	Student Services provide interesting extracurricular programs on campus	30.440%
	It is great to have VIP events on campus all the time that students can attend to extend their learning	45.607%
	I think we have a great campus life that both faculty and students can enjoy	30.440%