



DEVELOPING THE STRATEGY FOR QUALITY ASSURANCE OF OPEN AND DISTANCE LEARNING IN PAKISTAN: THE HIGHER EDUCATION PERSPECTIVE

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ABSTRACT

Purpose:

Open and distance learning opens a newfangled and wide range of expansion and opportunities for higher education institutions. This paper aims to review the quality assurance system and develop a strategy framework for quality assurance of open and distance learning in Pakistan with particular reference to higher education institutions.

Design/methodology/approach:

An integrated process model of quality assurance in open and distance learning structured for higher education institutions after reviewing existing literature. This paper has adopted a quantitative perspective and used a structured questionnaire to develop the quality assurance framework. Furthermore, a variety of approaches were also used to conduct survey to identify a number of factors that have an impact on quality assurance process of open and distance learning.

Findings:

The literature shows two arguments of quality assurance framework for open and distance learning which become an important concern for quality assurance agencies all over the world. Regardless, many quality assurance agencies are in the favour of demarcate quality assurance system for both mode of studies and the current approach is not fulfil the quality assurance requirement of open and distance learning. After following a quality assurance framework, the paper manifest that open and distance learning is like chalk and cheese from formal mode of study and the adopted quality assurance framework by Higher Education Commission (HEC) of Pakistan is not seize the open and distance learning system.

Research limitations/implications:

This research explores a starting point for developing a strategy for quality assurance for open and distance learning. In addition, the proposed framework supported by an advanced quality assurance system which is established in developed countries but not in

developing countries like Pakistan. However, further research may also be needed for implementation of proposed strategy.

Practical Implications:

The results of this paper include implications for Higher Education Commission (HEC) and also helps to develop internal quality assurance system for higher education institution in Pakistan.

Originality/value:

The proposed framework identifies a need to take open and distance learning as a separate system for assuring quality. Moreover, this paper provides an initial baseline and therefore an innovative approach to open and distance learning quality assurance.

Keywords:

Open and distance learning, Quality Assurance, Higher Education Commission (HEC), Higher Education Institutions.

INTRODUCTION:

The quality assurance in open and distance learning has become a pervasive issue for regulatory agencies in education from last two decades. The first collective effort in this matter was done in 1995, when the International Council of Distance Education (ICDE) arranged a world conference. The main theme of this conference was that how to solve the quality assurance issue in open and distance learning which has become the central agenda of all educational regulatory authorities and distance learning practitioners (Sewart, 1995). It has been noticed that the subject matter will gain further significance in near future due to rapid increase in students in distance mode and adoptability of modern technologies of higher education institutions. The prediction of NAFSA (now known as Association of International Educators) about global higher education stated that up to 2020, the demand for seats will be double to 200 million with the base year of 2000 (Redden, 2009). The most important one of above prediction is that this growth will be in open and distance education. The higher education practitioners observed that there is an increased use of distance learning in education sector. Therefore, a large number of universities are changing their mode of study from face-to-face to open distance mode or adopting dual mode. The quality assurance has become a challenge for regulatory agencies especially in those higher education institutions, which operate their programmes in dual mode i.e. formal and distance learning. However, this change is in its preliminary stages especially in developing countries like Pakistan and the change has no specific quality assurance system. The Higher Education Commission (HEC) of Pakistan has the same quality assurance framework for both modes of studies. Before discussing the strategic framework of distance education, first we need to define 'Distance Education'. According to Rumble (1986), distance education is the imparted education where the learner is physically separate from

his teacher. There is an abundance of discussion regarding the jargon of Open and Distance Learning. Keegan (2002); Mutula (2002); Homan Macpherson and Wilkinson (2005); indicate that the term open and distance learning can also be used in the context of distance education, distance teaching, online education, web-enabled education and distributed learning.

Successful distance learning requires a proper quality assurance system, which must match with its nature. Mugridge (1999) elaborate quality assurance framework in two parts;

- 1) To ensure the specified standards through set of activities undertaken to avoid faults.
- 2) To ensure correspondence of all activities in which distance learning is involved.

The quality assurance system of open and distance learning must have a systematic review of established standards to manage operational and academic tasks. The quality assurance system has a very critical role to drive out the programmes' efficiency regarding the leaning outcomes and objectives that are accomplished or not. The quality assurance framework for open and distance learning has a wide range of processes, which include faculty capability, their professional development and student support services with their outcomes. However, there is a dichotomy for quality assurance system in higher education institutions. Some propose that open and distance learning requires a complete different quality assurance system while others are in the favor of developing some policy changes in existing assurance system. Nevertheless, both schools of thoughts have consensus on some common parameters that must be assessed by the quality assurance system both in open and distance learning mode which are;

- Mission statement with stated objectives and outcomes.
- Level of professional staff and their commitment.
- Learning course materials, resources, media involvement, progression and retention rate of students with their performance.
- Counseling and advising services, supporting framework for learner progress, management of study centers with induction of Information and Communication Technology (ICT).

The above mentioned features are summarized by Babu (2005) in three categories for open and distance learning which are given below;

- 1) Operational Features/Characteristics (usability, security, reliability)
- 2) Transition Features/Characteristics (portability, interoperability)
- 3) Revision Features/Characteristics (testability, modularity)

However, it is observed that the developed countries have drawn a separate quality assurance framework for open and distance learning. The Institute for Higher Education Policy of USA has developed 24 benchmarks which cover seven aspects to ensure excellence in internet based distance learning (IHEP, 2000). These benchmarks were

developed after receiving the inputs from USA Federal State and Council of Higher Education Accreditation (CHEA) that there is a need to revise the standards to ensure quality of distance education. Similarly, the UK has also designed new guidelines for quality assurance in distance learning in higher education institutions (QAA, 2002).

The open and distance learning system introduces new structures and circumstances in higher education environment. Features like course management, library and learning resources through electronic access and also its audio, video and textual formats are considerably different from traditional mode of study. For quality assurance agencies, these variables of distance education are the potential challenges and there is a need to develop a framework that would be valid for quality assurance in distance education.

PROBLEM STATEMENT:

The increased share of open and distance learning students, increase in number of distance and open universities and more especially the institutions which are operating their programmes in dual mode are some factors that enforce the relating regulatory authorities to develop a quality assurance system which must match the features of open and distance learning system. The quality assurance agencies bear responsibility to maintain the quality of programmes which offered in distance mode. This transformation and adaptability initiatives are the great challenges in the subject matter for quality assurance agencies. The lack of quality assurance system leads to the programme failure. In most of the developing countries, the quality assurance system is same for both modes of studies and Pakistan is also one of these countries. The proposed quality assurance system of Higher Education Commission (HEC) of Pakistan does not properly address the dynamics of open and distance learning system. Their system needs to develop further procedures and appropriate policies to cover the distance learning mode in order to achieve the full benefits of it.

RESEARCH QUESTIONS:

The problem statement is operationalised with the help of the following research questions;

- 1) What factors be included in quality assurance system for open and distance learning system?
- 2) When proposed factors are implemented then would they be applicable and acceptable to regulatory agency of quality assurance (Higher Education Commission) and distance learning institutions in Pakistan or not?

RESEARCH OBJECTIVES:

Quality assurance framework for formal and distance learning universities is same in Pakistan. Consequently, assessing open and distance learning under the existing system was found deficient in many respects and is not suitable to manage the quality standards of open and distance learning system. In this context, the main objectives of this paper are;

- 1) To highlight different practices that polarize the current procedure of managing quality assurance in ODL education system and requires a stratified quality assurance system particularly when it crossroads with e-learning environment.
- 2) To provide parameters for managing quality assurance in ODL system.

BENEFICIARIES OF THIS STUDY:

The following academic institutions shall be the beneficiaries of this research study;

- 1) The Allama Iqbal Open University (AIOU), which will be able to implement proposed strategic framework in internal quality assessment process.
- 2) The Virtual University (VU), Aga Khan University Institute for Educational Development (AKU-IED) and other higher education institutions who also offer their programmes in distance learning mode will be able to implement the proposed strategic framework of quality assurance.
- 3) The Quality Enhancement Cell (QEC) of Higher Education Commission of Pakistan- the main beneficiary- which can use the proposed strategy of quality assurance framework for open and distance learning system and can develop separate quality assurance systems for both modes of studies.

LITERATURE REVIEW:

The main three knowledge domains, which describe the purpose of this study are shown in Fig. I. The shaded area in Fig. I. represents the problem of this research study i.e. quality assurance for open and distance learning in higher education perspective. Quality assurance is an ongoing and continuous process and therefore has become a major concern for educationists, national accreditation bodies and quality assurance agencies (Quality Assurance Agency, 2004; Western Cooperative for Educational Telecommunication, 2002).

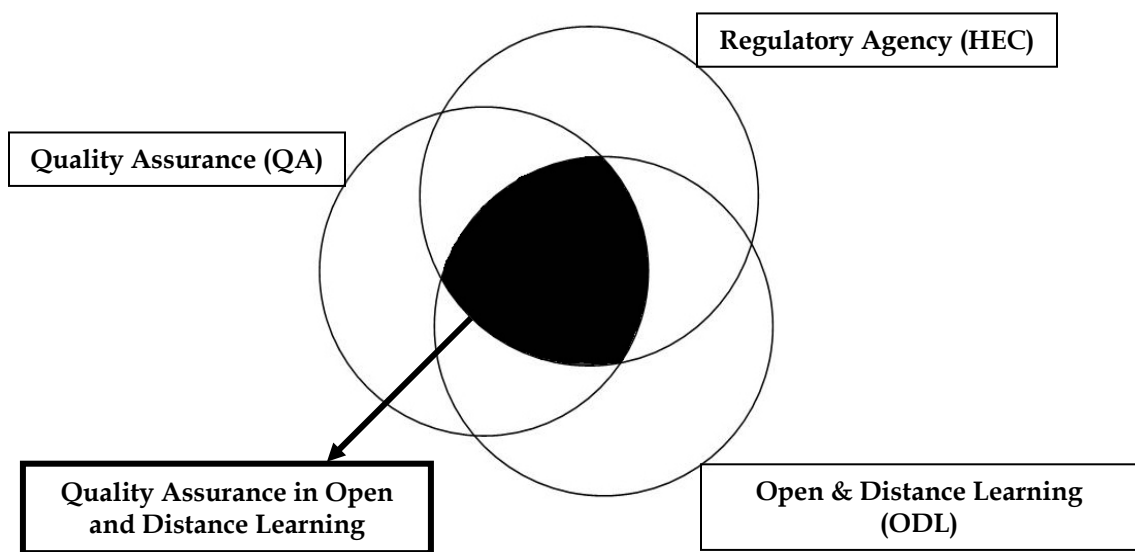


Fig. I. Three Main Domains of Research Study

In current age of competition, distance education is considered as a dominant educational provision and therefore its operations and features should be assured in quality according to its nature. To meet the requirements of current mass education, distance education is an important tool to accomplish this target especially in developing countries and without quality it may become a stumbling block (Prasad, 2003). A significant growth has been observed in quality assurance activities at institutional, national and global levels with the focus to improve the higher education. For this, the well reputed International quality assurance agencies work on best practices like different benchmarks and quality standards to improve quality in higher education and also share the common ideas related to quality development, improvement, assessment and its assurance (Harman, 2000; Brennan & Shah, 2000; Hopkin & Lee, 2001; Gosling & D'Andrea, 2001). However, Harman specifically defined quality assurance and stated that "It is a set of systematic procedures with the purpose of assessing programme activities by its stated objectives and outputs". This is a generic statement about quality assurance but diversity has been seen in different evaluation standards and criteria depending on the national and regional requirements of the higher education. Due to this reason, there is a need of higher education institutions and quality assurance agencies to collaborate with each other for the development of a proper quality assurance strategy. Generally, quality assurance is a process which is being done with the aim of satisfying all related stakeholders by examining the set of quality standards.

The quality assurance in open and distance learning becomes more complex with additional latest tools of Information & Communication Technology (ICT). This issue has gained a major attention in developing countries like Pakistan where the use of ICT in open and distance learning is in its pilot stage. It is a challenge for developing countries institutions to mobilize educators, students and related stakeholders in using ICT factor for open and distance learning (Mbwette, 2005). Due to technological developments, there is a consensus on a point that the quality assurance system for open and distance learning requires some changes to meet the future standards.

In educational context, especially in open and distance learning, quality and quality assurance are always being placed at high priorities because stakeholders have high expectations due to its easy adaptation and access which compelled the higher education institutions to provide quality distance education and also emphasized on quality assurance agencies to examine it as per quality standards. In this regard, some scholars argue that quality assurance standards and criteria which are used in formal education system are also applicable in distance learning system but others have different assumptions and in the favor of separate quality assurance system for open and distance learning (Stella & Gnanam, 2004). Based on research done by several distance education practitioners, World Bank (2002) mentioned, "the values, standards and criteria used for assessing quality in formal mode of study or campus-based programmes create confusion when the same applied in online and distance education". Thus, a number of quality assurance agencies all over the world have developed a separate quality assurance guidelines for open and distance learning. In the United Kingdom (UK), the Quality Assurance Agency for Higher Education gives six paradigms in provision of distance

learning quality standards and their assurance. These six headings are System Design, Programme Design, Approval & Review, Communication & Representation, Student Support & Development, Programme Delivery Management and Assessment (Quality Assurance Agency, 2002). In the United States (US), The Institute for Higher Education Policy publishes twenty-four (24) benchmarks, which further evolve into seven factors i.e. Institutional Support, Course Development, Teaching/Learning, Course Structure, Student Support, Faculty Support and Evaluation and Assessment for ensuring quality in distance education (Institute for Higher Education Policy, 2000). The quality assurance system proposed by Institute for Higher Education Policy, USA is more comprehensive than the UK quality assurance system. The USA quality assurance system for distance learning is in depth and mention all major identities of open and distance learning but when these benchmarks applied in developing countries for open and distance learning then this quality assurance system faces some impediments due to educational, technological and cultural differences.

Furthermore, The National Association of Distance Education of South Africa also developed quality criterions for distance education. In Asia, the similar practices also took place by the Indian Distance Education Council and the Malaysian National Accreditation Board. In addition, different researchers and scholars also proposed different indicators for quality assurance in open and distance learning. Chickering & Ehrmann (1996) applied seven principles in technology-based learning. These principles are (1) Encourage student-faculty interaction (2) Develop student-student cooperation (3) Implement active learning techniques (4) Prompt feedback system (5) Emphasizes on time efficiency (6) Communication (7) Adopt learning technologies (Chickering & Ehrmann 1996). Ten keys to quality assurance in online learning which are also applicable in ICT based distance education synthesized by Alley and Jansak (2001). These ten keys are;

- 1) Allow students to involve himself by his own knowledge
 - 2) Give freehand to students to take responsibility for their learning journey
 - 3) Control frustrations and increase positive thinking
 - 4) Student's self-reflection period
 - 5) Adopt and accommodate various learning styles
 - 6) Encourage active learning
 - 7) Action oriented learning should compel the learners to discover new knowledge phenomenon's
 - 8) Enhance critical thinking with reasoning
 - 9) Eliminate misconceptions and threats about learning activities and paths
 - 10) To learn efficiently, learners should have multiple learning paths
- (Alley & Jansak, 2001).

The above ten steps are the initiative of developing strategy for quality assurance in the context of stakeholder/learner point.

Commonwealth of Learning (COL, 1997) reported that open and distance learning need to pay concentration to bring quality in terms of its different processes including products,

production, delivery systems and philosophy. The processes which mentioned by COL is focused on total quality approach which is very useful and effective practice. It examines the whole open and distance learning process (Zuhairi, Purwanto & Isman, 2002). The quality assessment of tangible products like course development and curriculum structure is much easier than the quality assessment of intangible products like teaching & learning process and intellectual & institutional relationship management (COL, 1997); which refers while proposing a proper strategy for quality assurance in open and distance learning, the quality assurance agencies must take in account both tangible and intangible products. COL (1997) proposed four major aspects of quality in open and distance learning i.e. pedagogical factors, production system, delivery system and philosophy factors. The updated form of quality assurance in distance education developed by COL named as 'Review and Improvement Model (RIM)' (Clarke and Daniel, 2010). This quality assurance model consists on five steps i.e. initiation; internal staff survey; self-review; verification; and follow-up. The salient features of this model are:

- 1) It is applicable at low cost with 'do-it-yourself' approach because it combines internal and external quality assurance systems.
- 2) It helps to develop continuous organizational learning with systematic thinking.
- 3) It offers high credibility for poor performance or existing drawbacks.
- 4) Focus on capacity building and development with continuous improvement.

In developing countries like Pakistan, quality assurance in open and distance learning is a new phenomenon. Although, a variety of quality assurance systems in open and distance learning has been developed having minor differences. These differences depend on the national competitiveness of higher education, available resources and rapid development of technology.

RESEARCH METHODOLOGY:

Purpose of the Research Study:

The purpose of this study, is to propose a strategy of quality assurance in open and distance learning for quality assurance agencies by searching the best practices which would contribute to improving the quality of distance learning mode.

Survey Methods:

A variety of survey instruments has been used to collect data for developing quality assurance strategy in open and distance learning. For survey, 5-point likert scale questionnaire was developed. In the scaling of questionnaire, 5 represents strongly agree, 4 represents agree, 3 represents uncertain, 2 represents disagree and 1 represents strongly disagree. Initially mail survey was used and questionnaires send to distance education practitioners, Open and Distance Learning (ODL) teachers and students. Another very important participant was the internal quality enhancement cell of Allama Iqbal Open University (AIQU). Through mail, 83 responses were collected. This technique provided

better response rate but it was very time consuming because responders did not respond to the questionnaire in time. To overcome this problem, interviewing method was used and we visits were made to teachers, students and some distance education practitioners (e.g. members of quality enhancement cell of AIOU and from other universities). Thus, 189 responses were collected through interview. The response rate of all open and distance learning stakeholders is given in Table I.

S.No	Participant	Sample (%)	No of Respondents
1	ODL Practitioners	11	30
2	ODL Teachers	37	101
3	ODL Students	52	141

Table I: Response Rate of ODL Stakeholders

Factors/Variables Used for Developing Strategy in Quality Assurance:

Based on the literature review, we developed seven (7) independent variables, which are Institutional Support (IS), Technology Support (TS), Faculty & Student Support (FSS), Course Development Process & Structure (CDPS), Instructional Resources (IR), Intellectual Contribution (IC) and Business & Institutional Relationships (BIR) and one (1) dependent variable which is Open and Distance Learning Quality Assurance (ODLQA). With the help of these variables, a heptagonal research model is designed for developing strategy for quality assurance in open and distance learning. The heptagonal research model is given in Fig. II

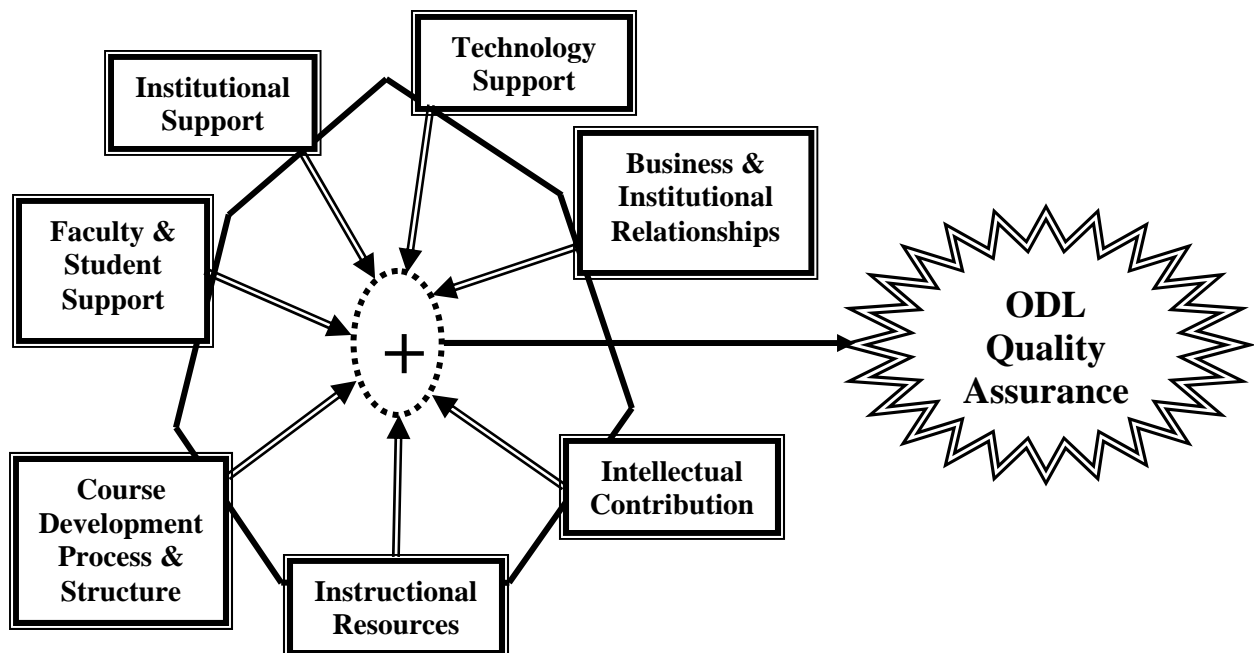


Fig. II. Heptagonal Quality Assurance (QA) Model of Open and Distance Learning (ODL)

Hypothesis:

Based on the literature review, one main and seven supplementary hypotheses are developed for this study.

H₁: There is a significant/positive relationship between selected seven benchmarks and ODLQA (Open and Distance Learning Quality Assurance).

H₁ (a): Effective Institutional Support (IS) positively affects the quality assurance in ODL.

H₁ (b): Appropriate Technology Support (TS) positively affects the quality assurance in ODL.

H₁ (c): Proper Faculty & Student Support (F&SS) positively affects the quality assurance in ODL.

H₁ (d): Efficient Course Development Process & Structure (CDPS) positively affects the quality assurance in ODL.

H₁ (e): Suitable Instructional Resources (IR) positively affects the quality assurance in ODL.

H₁ (f): Optimistic Intellectual Contribution (IC) positively affects the quality assurance in ODL.

H₁ (g): Satisfactory Business & Institutional Relationships (BIR) positively affects the quality assurance in ODL.

9. Data Analysis and Findings:

Statistical and qualitative data analysis methods were used after collecting data from respondents. The Structural Equation Model (SEM) using AMOS (Analysis of Moment Structure) tests the research model which is shown in Fig. III.

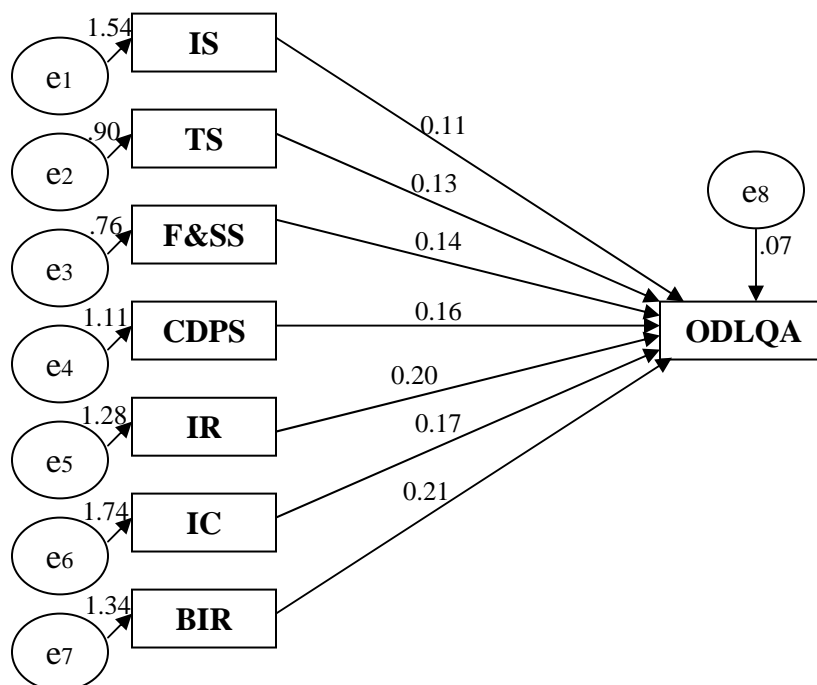


Fig. III. Results of QA Model of ODL through AMOS

Where as:

IS	=	Institutional Support (<i>Independent Variable</i>)
TS	=	Technology Support (<i>Independent Variable</i>)
F&SS	=	Faculty & Student Support (<i>Independent Variable</i>)
CDPS	=	Course Development Process & Structure (<i>Independent Variable</i>)
IR	=	Instructional Resources (<i>Independent Variable</i>)
IC	=	Intellectual Contribution (<i>Independent Variable</i>)
BIR	=	Business & Institutional Relationships (<i>Independent Variable</i>)
ODLQA	=	Open and Distance Learning Quality Assurance (<i>Dependent Variable</i>)

The Fig. III. shows the relationship among dependent and independent variables and structural equation model helps to measure the impact of selected benchmarks on quality assurance of open and distance learning. It further reveals the significant role of each independent variable (selected benchmarks) for quality assurance and its effect on open and distance learning. The summary of index fitness of ODLQA model is given in Table II.

Model Summary	
Chi Square	291.361
Degree of Freedom	38
P-Value	0.001

Table II. Index of Fit of ODLQA Model

The Table III. shows the fitness of hypotheses which are tested based on regression weights through AMOS.

Variables	Estimates	S.E	Critical Ratio	P-Value	Results
ODLQA <--- IS	0.11	0.02	7.18	0.00	Accepted
ODLQA <--- TS	0.13	0.03	8.83	0.00	Accepted
ODLQA <--- F&SS	0.14	0.01	9.64	0.00	Accepted
ODLQA <--- CDPS	0.16	0.05	8.53	0.00	Accepted
ODLQA <--- IR	0.20	0.03	6.54	0.00	Accepted
ODLQA <--- IC	0.17	0.06	11.09	0.00	Accepted
ODLQA <--- BIR	0.21	0.09	7.36	0.00	Accepted

Table III. Hypotheses Tested Based on Regression Weights

The index of fit of our model is shown in Table II. in which degree of freedom is 38. The results of this table show the fitness of ODLQA model. The chi square (291.36) and p-value (0.00) are the evidence from the results that the overall quality assurance model for open and distance learning is significant.

The test results of hypotheses and the degree of relationship between independent variables (Institutional Support, Technology Support, Faculty & Student Support, Course Development Process & Structure, Instructional Resources, Intellectual Contribution and Business & Institutional Relationships) and dependent variable (open and distance learning quality assurance) are shown in Table III.

The Table III shows that the beta value between ODLQA and IS is 0.11 and the relationship is evident from the analysis that if there is one degree change in IS then there would be 11% change in ODLQA. It means that increase in one unit of IS increases quality assurance in open and distance learning by 0.11 and this variable positively influenced the quality assurance system in open and distance learning. Similarly, the relationship between ODLQA with TS, F&SS, CDPS, IR, IC and BIR shows the beta value 0.13, 0.14, 0.16, 0.20, 0.17 and 0.21 respectively. It means that increase in one unit of TS, F&SS, CDPS, IR, IC and BIR increase quality assurance in open and distance learning by 13%, 14%, 16%, 20%, 17% and 21% respectively. Phipps and Merisotis (2000) research findings support our results of Institutional Support, Faculty & Student Support and Course Development Process & Structure. From these three variables of ODLQA model, course development process and structure has the highest positive impact on quality assurance in open and distance learning. Furthermore, Boyd (2001a) reported that instructional resources are significant for the improvement of quality assurance system which support our research hypotheses i.e. H₁ (e). Technology support is also a considerable factor for quality assurance in open and distance learning (Applebee, Dearn, Donnan & Kiley, 2003). Intellectual Contribution and Business & Institutional Relationships are the emerging factors of quality assurance in open and distance learning. The results show that BIR has the highest impact among other variables and increase in one unit of BIR resulted in the increase of quality assurance in open and distance learning by 0.21. The results of regression show that all independent variables have positive and significant impact on quality assurance in open and distance learning.

These research findings also provide answers to our proposed research questions. The first research question is;

RQ1: What factors be included in quality assurance system for open and distance learning system?

From regression weights it is clear that all selected independent variables are significant and have positive impact on quality assurance in open and distance learning. So, these factors must be included in the quality assurance system of open and distance learning.

RQ2: When the proposed factors are implemented then would they be applicable and acceptable to regulatory agency of quality assurance (Higher Education Commission) and distance learning institutions in Pakistan or not?

The exact answer of this research question would be available after implementation of the model in ODL institutions in Pakistan. However, the research findings show that the proposed model and its variables are acceptable and significant in quality assurance for open and distance learning.

CONCLUSION:

This study highlights the need to develop a strategy for quality assurance in open and distance learning with higher education perspective. Quality assurance is a complex process. In open and distance learning, this issue has become a major concern for educational practitioners due to globalization, advancement of technology, growing competition among students and students' rising expectations. Due to these reasons, open and distance learning system requires a separate quality assurance system from formal mode of study. However, in Pakistan, there is no separate quality assurance system for open and distance learning and Higher Education Commission (HEC) of Pakistan used quality assurance system for both modes of study. Our study proposes that open and distance learning should be dealt separately from formal mode of study and its quality should be assured according to its nature. Therefore, in developing the strategy, this paper further highlights different factors, which must be included in the quality assurance system of open and distance learning. Through research findings, it is clear that the selected factors have significant positive impact on quality assurance. This study can be helpful for regulatory authority of quality assurance in education (HEC). Moreover, open and distance learning institutions in Pakistan can implement the proposed model of quality assurance for internal quality enhancement. This study is the first step to develop a separate strategy for quality assurance in open and distance learning. However, the proposed model can be modified according to institution's infrastructure.

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