Chapter Two
REVIEW OF LITERATURE

The present study examines the financial aspects of distance education Institutions in Kerala, from a critical perspective. It is, therefore, useful to examine the works so far conducted in this area by established scholars and experts. Unfortunately, one cannot find much works in the focus area of the study, particularly on the financial aspects of the distance education institutions in Kerala. Still a few attempts in the basic and fundamental aspects of distance education were found worthy to be reviewed in a study like this.

Pillai and Naidu (1991)\(^1\) have attempted to provide theoretical frame to the analysis of cost in distance education. An elaborate description of different concepts of costs is attempted with illustrative examples and derivatives. The study was aimed at analysing the cost involved in the development and production of selected courses, to indicate the unit cost of developing producing, and delivery of courses offered by IGNOU, and provide a basis for developing a system of cost accounting for the future. Apart from the structure of cost and norm setting for the future, the study has examined the economies of scale, academic costs, costs analysis and cost benefit analysis. The study has clearly defined the various types of costs like direct and indirect costs, fixed costs, variable costs, and accumulation factor and cost functions.
However, the authors have failed to elaborate on the statistical basis of regression analysis, which readers from other disciplines must seek for.

Though the study has undertaken in a modest way with a view to evolve a methodology for analysis of costs in the distance education system, it has developed a methodology to provide significant basis for future studies. The study has derived certain cost functions and found that there are very significant variations of absolute cost across the number of costs and programmes. The study has recommended for a programme wise study, as it will help to analyse the subsidy provided for different programmes. In reviewing the structure of fees and for revising it, this kind of study will be much useful. The study has certain limitations as it has failed to encompass the study of capital costs and did not attempt a comparative analysis with the formal system of education.

Another work by Naidu (1998a) has attempted to provide a detailed account of pricing strategies adopted in distance education. According to the author, education is generally considered as a social factor and many believe that educational programmes may not be offered only on financial considerations. At the same time there are many constraints in generating resources and therefore educational institutions cannot be run under the conditions of loss. At least, it is wise to meet the expenditure. Also, there is a considerable debate on whether educational institutions should charge fees from the students and how far the fees
revenue able to meet the required expenditures. A distance education institute offers a variety of programmes to its students and it may not be fair to charge uniform fees from all of them. A variety of problems arise with regard to the charging of fees from the students. In his work, Naidu has attempted to provide solutions to this variety of problems one faces when attempting to decide the pricing strategies. An attempt is also made for developing theoretical framework for pricing dynamics and discusses the significance of behaviour of costs, breakeven analysis, and internal revenue planning in pricing of programmes, with illustrations and examples in the context of Indira Gandhi National Open University. One may feel some gaps at certain points of the work of Naidu. For eg. he has not explained the process of transforming the cost figures to the form of curves. This aspect some times puzzles a beginner or a reader from a different discipline.

In his paper on Economics of Quality in Distance Education, Naidu (1998b)\(^3\) has provided a detailed analysis of cost-effectiveness, cost efficiency, productivity and effectiveness of media and quality costs, which are the generally used economic measures of quality in distance education. The paper was an attempt to analyse empirically some of these economic measures of quality with reference to Indira Gandhi National Open University. The analysis has shown that most of the IGNOU programmes are cost effective and there is a high retention ratio in these
programmes. The faculty productivity has been 89 per cent when compared with the university norms.

Richard Pearce and Guy Sharrock (2002) have highlighted some of the problems associated with postgraduate teaching by distance learning and noted the changing environment of higher education, which will almost certainly see greater emphasis on part time study. The authors have suggested a two-fold approach to change. First, is the integration of internal and external teaching. The second plank in the strategy recommended is to resort to the electronification of both student support and study materials. The learning methods traditionally used to include three main elements viz, learning materials, tutoring materials and assessment. The changing academic environment has underlined the importance of life long learning and the requirement for flexible structures within which higher education is to be delivered. The emergence of computers have generated the problem of computer mediated learning and delivery of higher education. Finally, there is the increasing pressure placed on the time of academics in a research driven environment, and the associated opportunity costs of time spend in preparing and delivering lectures. Apart from this changing external environment, it has become apparent that the current distance learning system has a number of drawbacks. A sense of isolation is created among students, due to lack of the face-to-face contact with the students, and there is the problem of
student and tutor monitoring, and finally there is the difficulty of motivating academic staff to undertake the academic responsibilities. In the light of the issues discussed above, Wye College has designed two novel strategies, in anticipation of that it will allow its external programme to develop well in to the next millennium. It is an integrated network learner support environment.

According to Tegede (2000), the literature on distance education is replete with accounts of the gap between research and practice. The gap between research and practice is due to lack of focus on issues of immediate relevance. The research results are poorly communicated as well as disseminated, and also the appropriateness of the methodologies used in the studies. The paper discusses the relative merits, relevance and usefulness of quantitative, qualitative and reconstructive methodological frame works in distance and open learning research. It is also argued that it may be hardly useful in accepting one particular methodology and theory as the answer for how to conduct distance and open learning research in a post structuralist era.

According to Manjulika and Venugopal Reddy(1996), distance education in India has traveled through various stages since the University of Delhi School of Correspondence Courses, the pilot project in 1962. At present we have a very complex structure of distance education institutions, with one National University, nine State Open Universities,
and 64 Directorate of distance Education all over India operating under the umbrella of conventional universities. The system has developed into an alternative means of higher/professional education and has proved to be a strong system based on the needs and requirements of the public. Manjulika and Reddy have attempted to record the history of development of distance education in India. However, the authors have failed to device a model for distance education centers in developing countries as the claim of subtitle goes.

The National Education Policy aims at developing an Indian system of education appropriate for the requirements of the modern India, observes Ram Takwalae (1998)\(^7\). This has been widely accepted as the long-term goal of our education system and the fast challenges have made it imperative to ensure education for all and learning with out frontiers has become an objective for the development. The existing challenges and newly raised problems in the education system in India have resulted in increasing the importance of distance education. The transformation of humanity in to information society through newer communication technologies and their adoption in life and work situations have posed new challenges. The challenges are:

- Increasing access to large number of learners,
- ensuring equity in offering learning opportunities, making educational programme relevant to the needs and requirements of the people and society, and
- Finally, raising the standard and quality of education.

The author has examined the evolution of education system in India from the Gurukul System to the present university system of industrial era. Based on the challenges, needs and requirements of the changing socio-economic environment, the education system has to reorient and redefine in such a way that it incorporates the net working facilities. Actually, the transformation is from the oral communication to digital communication system in the education system. The author has examined the policies and programmes for transformation over network during the 9th plan period.

Dhanarajan et.al (1997) argue that despite the high-tech nature of the present economic thinking on distance education, it is in such a state that no civilized society can hardly afford to side track it. The talk about economics of distance education often springs up certain common concepts like production and distribution processes, human capital, educational benefits, cost of education, cost benefit analysis, production cost and revenue functions. etc. The work by Dhanarajan et.al examines this concept with analytical clarity and simplicity. The author has examined the core issues of the area like the rationale behind the public
funding of education and the relative merits and demerits of present scheme of learner financing and the possible way of reducing the burden of learners. An argument generally raised in this regard is that the quality of distance learning is much lower than the regular mode of learning. While quality and cost reductions cannot go hand in hand in static conditions, dynamic considerations have compelled educational planners to strike a balance between these opposing forces. The authors have made a detailed discussion regarding various options of reconciling these mutually conflicting objectives. According to the authors, given technological revolution, open learning is definitely going to be established as an industry. They are hopeful that the usual measurement problems of inputs and outputs associated with education and economic theory may be resolved with the help of new technology.

Perhaps the authors have taken the risk of going beyond the framework of economics of distance education to include the rationale of opting for open learning system. The authors have clearly identified the forces that have dramatically changed the process of education, particularly higher as well as professional education.

The traditional wisdom of teacher teaching and student learning no longer hold well now-a-days, as the economic, social, political and technological forces are dynamic and have changed the education dramatically. Universally, a shift in paradigm is occurring in the process of
learning and teaching. It needs to emphasize on the fact that learning demands people to help doing themselves in a learning society. It really enables, empowers and equalizes. distance mode of education, according to the authors, offers life long learning opportunities in the emerging learning societies. The beneficiaries must pay for the educational benefit they actually derive form it, and the cost incurred in distance education is much less compared to the regular stream of education.

The authors have also discussed the mode of financing in distance education. Experience shows that distance education institutions depend less on public funding. But, while looking at the social benefits of providing education to the people who might have missed it, there arise the argument for public funding.

The argument for public funding has certain problems to face. First, when the public funding emerges, the cost born by the students is reduced considerably. But, there is hardly any hard and fast rules regarding the demarcating line up to which public funding can go, and what proportion of the actual cost can be born by the students.

It is at this point, at which value judgments arise. The advocates of distance education put foreword two different arguments to cope up with this demand for self-financing of distance education.

1. Open learning is an alternative to the widely used conventional learning, which strives to have a self-financing objective.
According to the basic structure of it, the question of public funding hardly enters in to the frontier of it.

2. Public funding need not be resorted for the purpose of reducing the burden of cost by the students. The distance education system has its own inbuilt economies of scale and operation which will definitely reduce the per head cost it fully availed. These conditions bring to the fore three important issues. First the economies of scale, second, the cost effectiveness and third, the benefits to the students and society.

One argument is that if government funding is accepted in principle, it has to be streamlined to the areas of investment in advanced technology based facilities for supporting self learning activities and for interactive media system. Broadly the work has concentrated on the following themes.

1. **Documentation of distance education as a concept of technology driven society.**

2. **Estimating optimum economies of scale on the basis of movement on the average cost curve**

3. **Subjecting open learning to conditions of competitive environment and**

4. **Evaluating cost effectiveness by including student behaviour.**
While the first question serves as a full introduction to the distance education, the other questions serves to provide analytical insights to the economies of open learning.

The increase in the teacher-student ratio and the decline in the per capita student expenditure are the measures of quality generally used. Barrat, Slater and Morgan(1996)\textsuperscript{9} have reviewed 21 such quality techniques. But, quality plan, quality audit, quality review and quality costs are the widely used techniques of quality measurements.

Cost efficiency, cost effectiveness, average cost, graduation rates, productivity rates, consumer satisfactions, cost resulting from poor quality of education, investments made for permanent improvement in quality are the economic measures of quality.

Generally, quality of distance education is determined by the factors like cost structure on the planning, development and production of the digital instruments for teaching, student support services and other important overheads.

Cost efficiency and cost effectiveness are the important performance indicators, measuring the interrelations between quality and costs. Cost efficiency is concerned with the study of least costly way of achieving a defined objective. In other words, it is the level of output which is related to an optimum level of expenditure, at a standardized level of quality.
Cost effectiveness, on the other hand, deals not only with the output expenditure ratio, but also with the quality of the output compared. Distance education, as the authors opine, has high fixed cost and low marginal costs. Economies of scale are measured by the trend in the per capita expenditure and the number enrolled. The institution will be enjoying economies of scale if the rate of increase in the per head costs is lower when there is increase in the number of enrollment.

Productivity, in distance education according to the authors, is the ratio of output generated to resources used. Simply, it is the output-input ratio. The Input factors are : 1. Enrollment, 2. Faculty 3. Students and Output factors are : 1. Course Credit on offer 2. Retention of Students 3. Drop outs 4. Graduates 5. Time taken to complete a course.

Quality costs are really losses resulting from poor quality and investment costs, for improving quality. Quality improvement techniques shift from failure to prevention.

Rapid development in technology has made education a global phenomenon beyond the four walls of classrooms, according to Rubin Masin (1998). Now a days one can get higher education sitting in one’s study room or work place, thanks to the pioneers of distance education and development of technology that has facilitated this kind of development, Rubin and Masin have examined all about what, why and how of technology applications is making education possible.
The work generally discusses the conceptual basis of global education as reach, access and development. According to the authors, technology is an encouraging force for globalization of education, and points out that education ceases to be learning, analysis, discussion and examination and becomes a product to be bought and sold, to be packaged, advertised and marketed. They have identified four different technologies for teaching at distance learning standards. They are: 1. Text based system 2. Audio System 3. Video System and 4. Web based system. Emphasizing on the quality to be maintained in this stream of education, he has discussed the pedagogical approaches to assessment techniques with examples. They conclude that there is the need for reengineering of the organizational set up to adopt the new environment.

The paper by Rao (1997) touches on the important aspects of the performance indicators that have become relevant in higher education particularly in distance education. Certain parameters of performance indicators exercises have been highlighted, referring to a few examples. Some analysis emerging out of experiences abroad have been referred to, and then comparable criteria for evolving qualitative and quantitative data for performance indicators in the sector of learning materials development have been suggested by the author.

According to Rao, it is in response to the hue and cry about the quality erosion in education, particularly in distance education, that the
concern with quality indicators of performance was developed. The author observes that this quality movement is parallel to the quality consciousness in the field of industry. The author, has also analysed the concept of entry and exit performance indicators and the quality of learning materials.

Bhatnagar(1997) has addressed the problems, which have surfaced during the emergence of distance education all over the world vis-à-vis the Indian context. He has put the scenario in micro and macro form beginning with theoretical perspectives and went ahead to various developmental phases of distance education in a lucid manner. Indian scenario of distance education has been elaborated and highlighted the fact that during 1962-1998, India has witnessed great strides in the field of distance education. He has also described chronologically the emergence of different distance education institutions and other institutes of correspondence courses, issues related to different types of learners and their performance, and the social needs and the trend. Explaining the different quality indicators of performance he observes that success of any educational system depends on the quality of its instructional materials. He also discusses the different approaches with respect to the preparation of study materials and faculty development. Finally he has examined the financial administration of different distance education institutes in India. The better insights provided by the author on
efficiency and economy is highly useful to the policy makers and planners. A few suggestions for tapping the full potential of the human resources have also been provided by the author.

Naidu (1998c) has argued that education is generally considered as a social issue and many believe that educational programmes may not be offered on financial considerations. But there are heavy constraints of raising finance and hardly these institutions run under loss. There is also the question whether the educational institutions can charge fees for the services offered to the public. Most of the distant education institutions have different types of programmes and it is not easy to charge uniform fee for different programmes. Naidu has attempted to design a theoretical framework for fixing the fee rates for different programmes conducted by these institutes.

There is a growing complexity of costs incurred in the process of predicting optimum enrolment, estimating costs, fixing student fee etc. For the purpose of decision-making, one of the important aspects of pricing of programmes is the determination of how unit costs vary with the enrolments. The author has examined and elaborated different types of costs such as fixed costs, variable costs, average costs and break even point, internal revenue planning etc. He has further discussed the concept of dynamic pricing. Since no single method of pricing can be used in the case of distance education programmes, depending on the
situations and different issues discussed, it is better as well as logical to apply different strategies of pricing. By following appropriate pricing strategy programmes can be made profitable to a certain extent. Price discrimination can be used in the case of certain programmes. Dynamic pricing will help the educational managers to judiciously combine the public and self-financing techniques.

According to Naidu, distance education finance raises certain issues like whether the students have to bear the costs, or the government to meet the expenses and subsidies the programme. Meeting of full cost by the beneficiaries has generated heated debates not only in India, but also in developed countries. Charging of full costs from the students is to be based on the average prices and it is difficult to estimate the actual cost of the programmes. Discriminatory price fixing may raise the issues of cross subsidization.

The author feels that it is difficult to measure the marginal costs, if large number of enrollments are involved. Distance education institutions have to face certain price war if new institutions emerging are offering same products.

The collection of works edited by Kam and Esergen (1998) attempts to examine the possibility of integrating the achievements of information technology with the distance mode of education. The first part examines the need and relevance of distance education Institutions
in developing as well as third world countries. The authors feel that the demand for distance education has been increasing in the third world countries due to the failure of conventional education to create material impact and due to cost effectiveness of distance education compared to the traditional mode of education.

The emergence, popularity and spread of distance education Institutions in U.S are also been analysed in the collected works. The instructional effectiveness of different distance education delivery models is compared with different conventional modes of techniques. The finding indicates that distance education institutions can be made more effective if appropriate methods and techniques are properly used. It has a great potential for enormous expansion if scientifically developed.

A detailed and elaborate section on information technology and the potential of distance education for integrating it with IT has been provided in the work. The role of virtual classrooms, Internet based on-line classes and education, digital techniques of imparting knowledge are the options and possibilities explored.

More(1994) has explained the importance of Audio conferencing as a medium of imparting lessons in distance education. Identifying the inherent advances of Audio conferencing, the author argues that it is a learner-centered activity, relatively less expensive, robust and flexible medium that can be well integrated with other media. Programmes
designed around audio conferencing are comparatively effective than the conventional face-to-face programmes. All learners are given the chances of participating in the learning experience. The element of learner centeredness and interactivity is particularly significant in teaching subjects of high conceptual content. The author highlights the following four components for the successful high quality distance education system. They are: 1. Dependable technology 2.Trained Course Designers 3. Trained Instructors and 4. Trained and effective local support services.

According to Fred and Gooley (2000) we are in the age of teaching and technological revolution. A lot of experiments on teachers are going on embracing student centered learning approaches and basing their teaching as constructive models of learning. The teachers, the age-old sage on the stage are replaced by the guide on the side, an approach where the role of teachers is transformed to that of facilitators of learning. Across the globe, academicians of various fields are in constant effort to explore the potential of information and communication technology for integrating with the present teaching and learning methods. What actually the driving forces behind these innovative attempts have resulted is the reduction in per capita funding for teaching and training, increasing competition and providing access to the disadvantaged people and the valuable learning experiences to the learners. According to the authors, all these attempts in this regard needs to be recorded for gearing up efforts
in this direction and avoid duplication of efforts. The present volume of edited works is an attempt in this regard. The papers included in this volume are really the experience sharing of experts in this area and provides a record of their funding, collectively, illuminating the teaching and technology revolution.

For a long time, according to Malla Reddy (2000)\(^{17}\) higher education has been the responsibility of conventional universities. It is only recently that the new alternative mode of education became popular and began to spread education speedily than the conventional education did. Distance education centers and correspondence institutes began to cater to the largest group of sidelined population who could not be brought to the mainstream education. In the growing stream of distance education, evaluation of it from various points have became quite relevant as well as significant. The attempt of Malla Reddy serves this purpose to some extent. Comprehensive evaluation of distance education is not an easy task. But Malla Reddy has attempted to do much justice in this aspect by covering most of the areas of distance education including study materials, curriculum, contact classes, study centers, teaching technologies etc.

An important area of distance education that needs evaluation is curriculum, which has to be reconstructed and remodeled periodically, to make it fit enough to meet the requirements of the changing society. The
author feels that the content of the syllabi and curriculum need to be evaluated on the basis of their social relevance.

Another area where evaluation is essential is that of the study materials. The study materials produced are substitute for teachers and have to be prepared in the way of self instructional and self-learning format. It has to be evaluated for whether they truly satisfy the demand of these learners in this context. Evaluation of contact classes or counseling programmes are to be made to see that how far they are meeting the requirements of the learners to clear their doubts and provide much insights.

Study centers are contact points between distance education centers and the learners. They really provide different types of service to the learners. The study centers are places which the learners can visit, for acquiring knowledge, skills and provide feedback. Evaluation of study centers is to be made to understand how far they cater to the requirements of the learners.

Distance education teaching technologies are to be assessed for understanding whether they are updated and modernized to the requirements of the society and the need of the learners. The ideal mode of teaching should be that updated with the change in science and technologies.
Manjulika and Venugopal Reddy (1996) have observed that the concept and practice of distance education has gained momentum and acceptability throughout the world. Several reasons are behind this urge for education. The universal demand for better education, thirst for knowledge and the failure of traditional institutes and system of education for catering to the increasing popular demand for higher education has been the reasons behind this trend.

The frontier of education has been changing always and yesterday’s education will not be able to meet today’s requirements. Education has to meet the developmental requirements of the economies, particularly third world economies. Development of human capital is the major strategy for the rapid growth and development of the economy. Distance education has proved to be the right alternative to the conventional system as it is not only cost effective, but it has the right potential to reach out to the large segment of the unreached population.

In both developed and developing economies, distance education has established itself as an important component of higher education and adult education. This work considers the experience of the various types of distance education system and that emerged in the developing countries. The authors have elaborately discussed the emerging and established system of distance education, in three different sections. The first section is an exclusive profile of distance education in India, the
second section deals with the aspects of Indian open Universities and the third one examines the global perspectives of distance education.

Distance education, according to Perraton has grown faster than any other branch of education. The controversy over its acceptability is still raging between the supporters and critics of it. The work by Perraton sets the expansion of distance education, in the background of the growing importance of it as an alternative system of education, adult education, teacher training and professional education. A range of topics including development of distance education in non formal education for adults at schools and in higher education, cost and benefit of distance education, the impact of new technology and globalization of higher education, the potential economy of distance education examining why the governments have promoted it. The work has provided a balanced evaluation of the legitimacy, advantages as well as disadvantages of distance education as a way of teaching and learning.

According to Perraton, distance education has certain advantages for the poor countries. First is its economy: School buildings are not required and teachers and administrators can be responsible for many times more students than they can accommodate in a school. Its second advantage is its flexibility. People who have got jobs can study in their own time, in their own homes, without being removed from their work for
long periods. Its third advantage is its capability of operating over long distances and catering to widely scattered students.

From his experience as an international expert in distance and Open learning the author concludes that Open and Distance Learning has been used for many different purposes, at various levels, of education and with a measure of success. It has done something to transit cultural values, to empower students, to acquire job skills to students, to improve their life chances. The growth of distance education can be interpreted in many ways. It can be viewed as the only system which has offered educational opportunities to millions of populations, otherwise they could not avail it. It has widened the educational opportunities as a move towards educational equity.

According to Simpson, (2000) Open and Distance Learning has experienced an explosive growth in recent years, with developments in information technology and Internet, enabling huge numbers of people to study in this way. Regardless of the different form of distance education institutions, they all require to offer effective student supports. Though much has been written about Open and Distance Learning, its enabling techniques, pedagogy, management, assessment and theory, the vital area which has been spared by the writers in the area of student support system has been neglected comparatively. The work by Simpson attempts to face this gap and contribute towards the enrichment of the insights in
the area of student support systems. The academic and non academic activities of this area have been clearly looked into and topics like developing the most appropriate tuition techniques, social support, student retention, delivering support at distance, face to face support, learning skills development and staff development are discussed in detail.

With the advent and emergence of information technology and web-based learning, eliminated all the barriers of sharing of information and knowledge. Though the traditional techniques like telephone, television, radio etc have been found their applications widely in the dissemination of information and knowledge for the purpose of distance learning and teaching, the modern methods of communication has been of much use in the effective delivery of lessons and imparting knowledge. Muralee Manohar(1996) has attempted to examine the theoretical perspective of distance education in the light of the above developments, in his edited volume on the theory and practice of distance education. Distance education, by concept as well as practice, rallies mainly on a variety of mediated communication connecting to the learners to the source of knowledge. The use of communication technologies then became an integral part of distance education. The educational technology media and its impact on distance Learning have been examined in detail. The extend of communication technologies used in the distance education are elaborately explained in the work. As a result
of technological advances, today learners not only have greater access to a variety of learning resources, but also have much control over their learning process.

Education, as Atma Ram (1990) observes, is seen as a process directed towards the pursuit of excellence for public good. His work which covers all aspects of higher education in India, has examined several prominent topics like concept of autonomous colleges, distance education, teacher evaluation, education of mainstream delinking degrees etc.

Distance education has drawn widespread and growing interest in this decade, an interest that has resulted in diversion and creative distance education systems. According to Garrison (1989) the major factor that has made creative contribution towards this has been the emergence of sophisticated technologies in the field of communication. The author perceives a paradigm shift towards the efficient and effective individualized communication and supportive systems to facilitate learning. The general frame of distance education is developing such a framework. The prophetical views expressed in the work have later determined the ways in which the whole system of distance education is to develop. He adds that distance education represents a new imperative of our times.

Reddy and Manjulika (2000) have examined the world of Open and Distance Learning in an in depth manner. Open and Distance Learning is one of the important and widely proliferating educational
phenomenon globally. This mode covers 1000 institutes 107 countries and nearly 40,000 and odd programmes. In other words, the phase of higher education is undergoing a tremendous change due to the introduction of the digitally dominated technologies in distance education.

The work of authors Venugopal and Manjulika consolidates the articles and papers drawn from the experience of the different countries and experts illuminating different aspects of the distance education system and its allied areas.

As the authors state, we are living in a knowledge society and moving to the knowledge era. The forthcoming period of change, with significant advances in communication technology, the opening of the global economy and the demand being placed on limited resources of national government is giving rise to new ways of thinking and acting about education. In their paper, the authors have attempted to examine the role of distance education and open learning in the phase of transition to a global economy, as well as the emergence of information and communication technology. The authors conclude that the challenges before distance education at this juncture are really tremendous. The distance education is getting more learner centered and there is a paradigm shift from institutional based learning structures to open architecture education that will occur at a time, place and suitable to learners than teacher.
Todd and Wong (1996)\textsuperscript{24} have given a detailed profile of the Open University of Hong Kong. The university was established in 1989 for providing quality education to the adults in Hong Kong on a self-financing basis. With its strategic focus on academic quality and disciplined cost management, the university managed to fulfill the mandate with flying colors. The paper provides an excellent account and comprehensive analysis of the features of the education provided by the university and its achievements in the first decade.

Dennis Irvine (1996)\textsuperscript{25} has examined the distance education programmes of University of the West Indies, Caribbean. The English speaking Caribbean has a history of four decades with the distance education in which Radio has been used in the most efficient manner. University of West Indies is the pioneer in this field of distance education which had its real beginning in 1978.

The paper of Dennis Irving provides a detailed account of the functioning of the premier institute, which has a dual mode of education. The author observes that although beset with the usual teething problems, the university is proceeding steadily with determination to give effect to its commitment to become ideal dual mode institutions.

Pathaneni (1996)\textsuperscript{26} in his study analyses the motivation of distance learners through a sample study of MBA students of IGNOU registered in 1993 from Bhopal region. The main finding of the study is that the
unmarried population and female students are more motivated and their motivations leads them to complete the course successfully. The main limitations of this study are that it focuses on the motivation of the distance learners of only one programme of IGNOU.

Rajasekhara Reddy and Malla Reddy (1997) have conducted another study on the profile of students of Dr. B.R. Ambedkar Open University undergraduate programmes. The study covers 7 academic years from 1988-89 to 1994-95. It was found that the university has been able to achieve the objectives for which it was set up. However, the university has not been able to attract middle aged and old aged people to their academic programmes. The university has not yet been able to fully realize its objectives of catering to all the needs of socially backward sections especially Scheduled Tribes. The study was based on secondary data.

Sreenivasacharyulu and P. Ramaih (1994) examined the pattern of funding of Dr. B.R. Ambedkar Open University over a period of 10 years covering 1982-1992 and found that much of the financial burden of the university is borne increasingly by the students year after year in the form of higher tuition and other fees. The recurring state grant received by the university has been reducing over the years. The study suggest that the State government and other funding agencies should come to the rescue of the university by extending generous financing to ease the dependence
on income from student fee for sustaining the academic and financial development of the university to fulfill its mandate.

Pravada.D. Agarwal(1988) in her paper, attempts to make a comparative study of the unit cost of distance education and traditional education in the context of entrepreneurial development training programme conducted by small industries service institute (SISI), Karnal, through regular scheme and All India Manufacturers Oraganisation (AIMO), New Delhi, through correspondence scheme. Her study reveals that the unit cost at AIMO is higher by 39 per cent than that of at SISI, which is mainly due to the lower level of utilization of teaching and administrative staff at AIMO. As the major portion of the expenditure is incurred on staff salaries, which influences the fixed costs, there is need to make optimum and efficient utilization of the existing staff.

A few works on the Cost and Revenue of higher education, particularly distance higher education, are quite relevant to be examined. One of the pioneering attempts to analyse the operating cost of higher education has been made by Panchamukhi (1965). The author has estimated the maintenance cost of higher education of Bombay University, using the official statistics of Bombay University. In the evaluation he has excluded capital cost and opportunity cost of education. He has found that recurring expenditure on science and technical education was higher
than that in arts and humanities and instructional expenditure as percentage of total expenditure was generally low.

Amin and Pathak (1967)\(^{31}\) have estimated the per annual cost of education in 1964-65 in certain faculties of Sardar Patel University. The cost included the total amount of direct and indirect amount of expenditure incurred by individual and institutions. The study has not attempted the estimation of the unit cost of the entire course of different faculties.

Kamat (1968)\(^{32}\) has attempted to estimate the recurring annual institutional expenditure per student at the undergraduate and postgraduate courses of the university of Poona. The study has revealed that the higher costs of science courses are due to the recurring cost of equipments. The per student cost of P.G departments are 4 times higher than that of the same in degree colleges. The cost of medical and technical education is much higher than that of general education.

Datt (1987)\(^{33}\) has estimated the unit cost of government and private colleges and explained the variation in unit cost in terms of the age and size of the colleges using regression analysis.

Chalam (1981)\(^{34}\) has provided the theoretical basis for estimation of cost of education. He has estimated unit cost, both private and institutional, in higher education in Andhra Pradesh.
Greville (1982) has examined the cost structure and future system costs of the distance teaching Universidad Nacional Abierta, Venezuela. The author has attempted to draw some initial and general conclusions concerning the cost implications of media choice, the size of an institution's academic programme, and the number of students in the system. It also seeks to illustrate the general utility of cost analysis and projection as a service to those who are required to take decisions as to the future development of an institution.

According to Mavis (1987) the series of recommendations made by the Australian Commonwealth Tertiary Education Commission regarding the rationalization of the provision of external studies will serve to maintain the distinctions between distance and face-to-face education, while greater convergence in practice and further development of integrated modes of provision are what is really needed.

As observed by Markowitz (1987) a technique that used by managers of distance education programmes to monitor overall costs and revenues is the computations of break-even-point, the point at which revenues and costs are equal. The author has distinguished between fixed costs, that do not vary with volume, and variable costs, that which vary with volume and the cost implications of some common alternatives in distance education are reviewed. A procedure for computing the break-even point is described with its uses for the managers of the programme.
The paper by Curran (1993) \(^{38}\) has reviewed the institutional models of distance teaching at university level, with particular reference to the relationship between scale of enrolment and cost effective operation. The particular challenge of achieving an effective trade-off between scale, equity and cost efficient operation in small distance teaching programmes at university level is considered. The paper draws on the experience of a small national tertiary distance-teaching programme at National Distance Education Centre in Dublin, Ireland. The potential of new technologies in distance and open learning is widely promoted. However, many of the more interesting applications are experimental, or require substantial investment in fixed costs and hence are suited to large-scale operations. The paper considers the potential of a few technologies to reduce the scale of enrolment required for cost efficient operation in distance teaching systems. The discussion focuses on a few examples of the use of new technologies in enhancing cost effectiveness in smaller systems.

Perraton (1994) \(^{39}\) has examined the comparative cost of distance teaching in higher education. The development and widespread adoption of costing of distance education mean that there are no available data sets on the costs of a variety of institutions and programmes. Although the data are limited, the Commonwealth Secretariat has some information on the comparative costs of on and off-campus work at
bimodal universities and at open universities. The paper has also revealed that part-time students face significant opportunity costs.

The study also provides some answers to questions about the scale at which distance education is at an economic advantage or disadvantage as compared with conventional education. Much of the discussion of this issue has been theoretical and some data, from variety of countries, are set out in order to provide a factual basis for further discussion. Conclusions are drawn on scale and on policy implications for distance education and its financing.

Rumble (1997) has given some fresh insights and confidence necessary to cost their open and distance learning projects, by providing the necessary technical tools to undertake costing and to analyse the behaviour of costs. The author dissects in detail the arguments underlying the cost and economics of open and distance learning as well identifying the component parts within these systems, explains their significance. The author has provided evidences and references around the world.

Datt R (1993) has attempted to compare the cost of distance education programmes of 9 different distance education Institutes in India. The study has provided a detailed comparative picture of costs of distance education programmes in these institutions.
Raja Mouli (1993) has observed that in a developing country like India, where the human, material and monetary resources are scarce, there is a need for the avoidance of duplication of effort for the optimum utilization of resources. The author suggests a model of institutional network of the distance education institutions for the exchange and optimum utilization of course material, audiovisual resources to achieve economy in distance education.

It is clear from the above review of existing and available literature that no attempt to critically examine the financials aspects of Distance Education Institutes in Kerala can be traced.
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