



## **FINANCIAL MANAGEMENT OF PUNJAB TECHNICAL UNIVERSITY**

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### **ABSTRACT**

*Universities exist for various academic and non-academic reasons and also there is a strong relationship between proper financing and quality of the educational programmes in teaching, research, administration etc. by the universities. It implies that if the university does not adopt sound financial practices, its various programmes, policies and systems will be adversely affected. It is obvious that quality of various programmes of universities, both academic and non-academic can be maintained only when adequate finance facilities are available. The resources of the universities must be put to optimum use for which the universities must, at regular intervals, review their financial structure in order to uncover the limitations and explore the avenues for increasing their income. This can be done by an in-depth analysis of the sources and their applications. Universities function as per its statutes and regulations and has various social and welfare objectives to fulfill. But, because of government interference, there are certain genuine constraints that may hinder sound application of financial management principles by these institutions.*

Keywords: Higher education, University Financial Management, Revenue Receipts, Revenue Expenditure

### **INTRODUCTION**

The concept of universities has undergone significant changes over the preceding century. Particularly, after Independence, the functioning and size of Indian Universities multiplied with

greater pace. Increased national aspirations expected universities to develop as ‘centres for excellence’ rather than degree awarding institutions.

Since 1857, after first three Indian universities were set up in Bombay, Calcutta and Madras, there has been a phenomenal growth of the university system in India, not always for academic considerations. A number of political and social considerations have also often motivated the setting up of universities. In order to satisfy regional (converted into political) aspirations of the people, an increasing number of universities have been set up in various states. When political expediency supersedes academic imperatives and financial constraints, this results into a limping system that can hardly keep pace with the requirements of the rapidly changing times. Most of the expansion of the universities has taken place without the desirable concomitants of consolidation and integration of academic requirements. Hence, what has taken place is the ‘growth’ of the university system and not ‘development’; even this ‘growth’ has been unbalanced. This study is focused to identify the constraints and formulate tentative ways and means of improving the financial system of the universities.

## **REVIEW OF LITERATURE**

**Pillai *et al.*, (1962)** attempted to study the history and problems of educational finance in the primary and secondary education sectors in Kerala. It was found that the cost of education in relation to the total revenue of the state was far more excessive. The study made positive suggestions for reducing the expenditure on education and finding additional resources or bridging the gap between the expenditure and revenue.

**Panchamukhi (1965)** while presenting the estimated cost of education in India from 1950-51 to 1959-60, figured out resources costs as well as opportunity costs of education. According to his calculations, the total cost of education constituted 6.2 per cent of Gross National Product (GNP) in 1959-60.

**Miraduala (1981)** has studied the university financing with a thrust on the system of grant-in-aid. The study demands a balanced and rational budget on the part of the university as well as relatively lesser dependence on the government grant-in-aid and its effective and meaningful utilization by the universities, while cautioning the government not to interfere with the autonomy of the university using the grant-in-aid as a tool.

**The New Education Policy (1986)** stressed on the appraisal of the prevalent education scenario and to make an assessment of the financing of the education. Two basic achievements of this Policy can be summed up as advent of computer revolution in India and the spread of distance learning system of education.

**The Swaminathan Committee (1994)** recommended creation of corpus fund in institutions, establishment of Educational Development Bank of India with an initial capital of Rs. 3000 crores, reducing the share of salaries in recurring expenditure from 80% to 60% and enhancing fees to recover at least 20% of the recurring expenditure.

**Goswami (2004)** in the article titled “Industry lobbies for role in higher education,” stated that when the government is focusing on primary education, the private sector has decided to stake its claim in the higher education. Further, aiding the private sectors move in the realization in the government that public expenditure on higher education has been far from adequate.

**Walia (2010)** in her article, “**Unshackle the Varsity System**”, in “**The Tribune**”, stated that undoubtedly, higher education has made significant contribution to economic development and social progress but there are serious problems plaguing the system and time is running out for finding ways of refurbishing it. She further pointed that Nobel laureates along with about a thousand academicians including Indian scientist, Prof. Venkatraman Ramakrishnan, have sent a petition to the British Government not to base its funding policy on the basis of the economic or industrial relevance of research. The writer observed that quality assurance of courses studied at the university level can only be possible if the university is allowed to develop its own curriculum and examination system.

## **DATA BASE, CONCEPTS AND METHODOLOGY**

### **NEED OF THE STUDY**

It is a general observation that expenditure on various budget heads of the universities is increasing. But the resources are not keeping pace with the outlays and hence the gap between income and expenditure is widening.

Further, the resources of the universities must be put to optimum use for which the universities must, at regular intervals, review their financial structure in order to uncover the limitations and explore the avenues for increasing their income. Effectiveness of the university

system can be understood and improved to some extent by the study of management of fixed and working capital.

## **SCOPE OF THE STUDY**

The present study is confined to the Financial Dynamics of Punjab Technical University. The study relates to a period of five years, that is, 2005-06 to 2009-10. Although, the university was established in the year 1996, but there was a lack of compatibility in the methods of preparation of accounts during the period before 2005.

## **DATA COLLECTION**

The secondary data has been gathered from the Annual Budget Estimates, Annual Reports and Financial Statements of the University, reports of the University Grants Commission, Five Year Plan documents and information bulletins of the Ministry of Human Resources Development, Government of India, New Delhi.

## **VARIABLES STUDIED**

For the purpose of analyzing financial status, the budgets of the university have been divided into categories:

### **I Revenue Budget**

### **II Capital Budget**

**I) Revenue Budget:** The revenue budget has been divided into:

#### **(A) Revenue Receipts (B) Revenue Expenditure**

**A) Revenue Receipts:** Revenue receipts of the university have been further studied under the following heads:

- 1. Revenue from Semester Examination and Grant-in-aid – National Service Scheme (NSS)**
- 2. Revenue from Affiliated Colleges**
- 3. Revenue from Distance Education Programme**
- 4. Revenue from Entrance Exam/Counseling**
- 5. Revenue from Projects/Others**

**B) Revenue Expenditure:** Revenue expenditure of the University has been studied under following heads:

1. **Expenditure on Semester Examination**
2. **Expenditure on Affiliated Colleges**
3. **Expenditure on Distance Education Programme**
4. **Expenditure on Entrance Exam/Counselling**
5. **Expenditure on Projects/Other**

## **II) Capital Budget**

For the purpose of analyzing capital budget, it has been divided into the following heads:

- A) **Equipment**
- B) **Furniture and Fixtures**
- C) **Vehicles**
- D) **Books**
- E) **Miscellaneous (unforeseen)**

## **OBJECTIVE OF THE STUDY**

The present study has been done with the objective of evaluating the growth trend of various sources of revenues and expenditure of Punjab Technical University.

## **LIMITATIONS OF THE STUDY**

1. The study is subject to the limitations of the accounting data.
2. The study may not apply to other technical universities of India and abroad.

## **METHODOLOGY**

The relevant budgets, annual reports and reports of the Finance Committee have been scanned and the required portions were extracted. These were further tabulated and Annual Growth Rates (AGR) and Compound Annual Growth Rates (CAGR) have been calculated for all the main heads of revenue and expenditure to study and understand the growth trend of the variables of study. Annual growth rate has been used to study the growth trend of the revenue

and expenditure in each year whereas CAGR has been used to study the overall growth trend during the period of study. In general, CAGR over a number of years is a better indication of trend than a single year's growth which may be typically good or bad.

The CAGR is based on determining the number of years that will be used in the calculation. The base value for the most recent year under consideration serves as the ending value. In order to begin the process of calculating the compound growth rate, the ending value is divided by the starting value. The result percentage is then factored by the nth root, where n is the number of years involved in the calculation. The final figure will be the average or compound annual growth rate for all the years involved in the period.

Both the AGR and CAGR can be positive or negative. The positive values indicate acceleration in the growth and the negative values indicate a decline in the growth over the period. Here the annual growth rates have been calculated using the linear-splien function (piecewise semi-log trend). This function enables to obtain the growth rates of more than one period in single regression estimation.

## **STUDY OF GROWTH TRENDS OF THE REVENUE FROM MAIN INCOME HEADS**

### **1. Growth Trends of the Revenue from Semester Examination and Grant-in-aid (NSS)**

The annual growth rate (AGR) of the revenue from semester examination is the highest in the year 2009-10. But, the value of CAGR is 13.71% and also this value is significant at 5% level of significance as depicted by its p value.

**Table 1: Growth Rates of the Revenue from Semester Examination and Grant-in-aid (NSS)**

<b>Year</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>
Receipts (in lacs)	1200	1320	1420	1520	2220
AGR (in percentage)	-----	(100)	(7.580)	(7.04)	(46.05)

CAGR: 13.71% P Value: 0.027

### **2. Growth Trend of the Revenue from Affiliated Colleges**

The AGR of the revenue from this item is the maximum in the year 2007-08. This value is negative for the year 2008-09 and 2009-10 and this negative value of growth is more in the year 2009-10. Although the maximum value of AGR reached 107.5% in the year 2007-08, but

the value of CAGR over the period of study is just 23.80% which is not significant at 5% level of significance.

**Table 2: Growth Rates of the Revenue from Affiliated Colleges**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Revenue (in lacs)	400	600	1245	1150	950
AGR (in percentage)	-----	(50)	(107.50)	(-7.63)	(-17.39)

CAGR: 23.80% P Value: 0.115

### 3. Growth Trend of the Revenue from Distance Education Programme

The revenue from Distance Education Programme shows a significantly high growth in the years 2007-08 and 2009-10 with AGR values of 186.58% and 224.36% respectively. But the CAGR value is 75.55% which is a significant figure at 5% level of significance.

**Table 3: Growth Rates of the Revenue from Distance Education Programme**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Revenue (in lacs)	1090	1900	5445	7430	24100
AGR (in percentage)	-----	(74.31)	(186.58)	(36.46)	(224.36)

CAGR: 75.55% P Value: 0.001

### 4. Growth Trend of the Revenue from Entrance Exam/Counseling

The growth rates of revenue for the years 2006-07 and 2007-08 are positive, but the growth is negative in the years 2008-09 and 2009-10. The CAGR value for the revenue from this source is -1.96% which is an indication of negative growth during the period of study.

**Table 4: Growth Rates of the Revenue from Entrance Exam/Counseling**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Revenue (in lacs)	400	506	725	451	385
AGR (in percentage)	-----	(26.50)	(43.28)	(-37.79)	(-14.36)

CAGR: (1.96%) P Value: 0.84

Note: CAGR IN BRACKET INDICATES NEGATIVE VALUE

## STUDY OF THE GROWTH TREND OF THE EXPENDITURE INCURRED ON MAIN HEADS

### 1. Growth Trend of the Expenditure on Semester Examination

The AGR of the expenditure incurred on semester examination is highest in the year 2009-10 where its value is 62.36%. However, the value of CAGR is just 14.89% and it is not significant at 5% level of significance as depicted by its p-value of 0.06.

**Table 5: Growth Rates of the Expenditure on Semester Examination**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	600	616	659	720	1169
AGR (in percentage)	-----	(2.67)	(6.98)	(9.26)	(62.36)

CAGR: 14.89 P value: 0.06

### 2. Growth Trend of the Expenditure on Affiliated Colleges

The AGR of the expenditure on this particular item is not so high. Also, it is negative in the year 2006-07. The maximum AGR is in the year 2007-08 (39.76%). The value of CAGR is 12.67% which is not significant at 5% level of significance.

**Table 6: Growth Rates of the Expenditure on Affiliated Colleges**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	670.50	616.40	861.50	1170	1600
AGR (in percentage)	-----	(-8.07)	(39.76)	(35.81)	(36.75)

CAGR: 12.67% P value: 0.12

### 3. Growth Trend of the Expenditure on Distance Education Programme

The AGR of the expenditure incurred on Distance Education Program is showing wide fluctuations with a value of 136.65% in 2007-08 and just 1.68% in 2008-09. However, CAGR is 39.24% and its value is significant at 5% level of significance.

**Table 7: Growth Rates of the Expenditure on Distance Education Programme**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	497	692	1603	1630	2340
AGR (in percentage)	-----	39.24	131.65	1.68	43.56

CAGR: 39.24 P value: 0.009

### 4. Growth Trend of the Expenditure on Entrance Exam/Counseling

The AGR of the expenditure incurred on entrance exam/counseling attained the highest value of 102.16% in 2007-08 and the AGR is lowest in the year 2009-10 where the value is just 25.96%. Further, the expenditure grew at a CAGR of 42.98% which was significant at 5% level of significance.

**Table 8: Growth Rates of the Expenditure on Entrance Exam/ Counseling**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	128	185	374	520	655
AGR (in percentage)	-----	(44.53)	(102.16)	(39.04)	(25.96)

CAGR: 42.98% P value: 0.002

## 5. Growth Trend of the Expenditure on Projects

The AGR of the expenditure on this particular variable is nil in the year 2007-08 and negative in the year 2009-10. Also the CAGR is negative (-12.78%) and its value is not significant at 5% level of significance.

**Table 9: Growth Rates of the Expenditure on Projects**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	78	81	81	112	35
AGR (in percentage)	-----	(3.85)	-----	(38.27)	(-68.75)

CAGR: (12.78%) P value: 0.42

## STUDY OF THE GROWTH TRENDS OF THE EXPENDITURE ON VARIOUS HEADS OF CAPITAL BUDGET

### 1. Growth Trend of the Expenditure on Equipment

The AGR of the expenditure incurred on equipment has decelerated in the years 2006-07 and 2008-09 as indicated by its negative values. The growth is not depicting any conspicuous pattern and has been following a fluctuating trend. Also, the CAGR value is also negative.

**Table 10: Growth Rates of the Expenditure on Equipment**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	125	117.50	134	92	100
AGR (in percentage)	-----	(-6)	(14.04)	(-31.34)	(8.7)

CAGR: (6.90) P value: 0.18

### 2. Growth Trend of the Expenditure on Furniture and Fixture

The AGR is showing a rising pattern till the year 2008-09. Thereafter it has declined in the year 2009-10. Also, the rate of growth is much lower in the year 2009-10 in comparison to

the year 2008-09. The value of AGR is just 30.21% in 2009-10 as against 300% in 2008-09. The CAGR value is 47.62%.

**Table 11: Growth Rates of the Expenditure on Furniture and Fixture**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	50	41	48	192	250
AGR (in percentage)	-----	(-18)	(17.07)	(300)	(30.21)

CAGR: 47.62 P value: 0.18

### 3. Growth Trend of the Expenditure on Vehicles

The AGR of the expenditure incurred on this item is following a declining pattern. The value is positive in the years 2006-07 and 2007-08 whereas it is negative in the other two years. The CAGR value is just 2.4%.

**Table 12: Growth Rates of the Expenditure on Vehicles**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	63	85	101	77	75
AGR (in percentage)	-----	(34.92)	(18.82)	(-23.76)	(-2.6)

CAGR: 2.4 P value: 0.71

### 4. Growth Trend of the Expenditure on Books

The AGR of the expenditure on books is following a fluctuating pattern during the period of study. The value is maximum in the year 2006-07 (38.89) and minimum in the year 2009-10 (-3.23). The CAGR value is 2.4.

**Table 13: Growth Rates of the Expenditure on Books**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	36	50	51	62	60
AGR (in percentage)	-----	(38.89)	(2)	(21.570)	(-3.23)

## 5. Growth Trend of the Expenditure on Miscellaneous Items

The AGR of the expenditure in this case is showing a fluctuating trend. The values are negative in the years 2006-07 and 2009-10. The AGR in the year 2008-09 is mere 4.76%. The compounded value of growth is also very low 3.54%.

**Table 14: Growth Rates of the Expenditure on Miscellaneous Items**

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Expenditure (in lacs)	21	14	21	22	20
AGR (in percentage)	-----	(-33.33)	(50)	(4.76)	(-9.09)

CAGR: 3.54 P value: 0.61

## CONCLUSIONS AND SUGGESTIONS

It is pertinent to mention that CAGR of revenue from distance education programme of the university is maximum followed by the CAGR of the revenue from the fees and funds collected from the affiliated colleges. It has been found that AGR in case of revenue from affiliated colleges during the years 2008-09 and 2009-10 is negative because of the finding that there were less number of new colleges affiliated with the university during this period. CAGR of expenditure on entrance examinations is the maximum followed by CAGR of expenditure on distance education programme and conduct of examinations; and CAGR of expenditure on affiliated colleges is the minimum, reason being the same as for CAGR in case of revenue from affiliated colleges.

As enunciated in the Act of the University in its aims and objects, the University may generate and maintain resources through consultancy services, testing services and national and international collaborations. No steps have been taken towards this, perhaps, due to lack of infrastructural facilities for creating such services, as the University did not have its own campus and research and technical staff. Also, indifference of the university administration for generating additional resources through such services seems to be sufficient reserve of funds at their command collected through distance education programme and from the fees and funds collected from the affiliated colleges. But with the dwindling collection of revenue from these

two main sources of income in the years to come, the University shall have to initiate necessary steps to build infrastructure and appoint qualified technical personnel for creation of its state-of-the-art Consultancy and Testing Services Centre for generation of additional revenue by providing best of the services after having close inter-action with the local, national and international industry.

Even though number of technical institutions have grown tremendously in our country, to the extent of having reached at saturation level that the AICTE is contemplating to put moratorium on the opening of new technical colleges, but it is very disheartening to note that the role of both the technical universities and other technical institutions towards high standard research in the field of technical education and general sciences and creating scientists of international standards has not been encouraging. It is disgusting to note that during the last more than two decades, the universities including the technical universities are contented in producing only engineers for national and international companies dealing with outsourcing of services and for other sundry services; but there is dire need for the universities to create research centres of international standards along with special scholarships to attract the youth towards higher research and to inculcate in their minds a sense of becoming top scientists rather than ‘white collared’ engineers. The PTU, with its reserve of funds, can act as a torch-bearer to serve the country in filling the gap of scarcity of scientists.

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