

Growth of Higher Education System in Karnataka: Its Challenges and Suggestions

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Abstract

The higher education is being regulated and carried by the Department of Collegiate Education which was set up in the year 1960. Since then this department is making its efforts to impart higher education which is of higher quality, affordable and accessible to all sections of people. Karnataka Jnana Ayoga (KJA) has been setup in the state in the year 2008 for increasing the knowledge foundation and reservoir of the society. It has identified Higher Education as one of the primary focus areas that is required for building and transforming Karnataka state into a vibrant Knowledge based society. The demand for higher education has grown over the years. It has shown a considerable improvement over the respective period. Now in the year 2015-16, the total number of universities in the state stands around 52 with around 1529 colleges affiliated to it. The rate of growth of universities stood at CAGR of 7.64 per cent in Karnataka, while the total higher educational institutions have grown marginally with CAGR of 3.62 per cent. Per-capita expenditure is calculated by dividing the total expenditure on higher and technical education to that of the total enrolment. It reveals that the per-capita expenditure spent on higher and technical education in Karnataka during the period 2000-01 to 2015-16 has grown consistently with CAGR of 3.1 per cent. The value of Co-efficient of variation in this regard during this respective period has stood at 32.9 per cent, which is lower than 50 per cent.

Key Words: Education, University, Enrolment and Expenditure.

Introduction

In Karnataka, the higher education is being regulated and carried by the Department of Collegiate Education which was set up in the year 1960. Since then this department is making its efforts to impart higher education which is of higher quality, affordable and accessible to all sections of people. The Karnataka State Government has constituted a Task Force on Higher Education in 2002, which realized the need for State level planning and co-ordination of Higher Education including University Education through an independent autonomous body for Higher Education in order to bring out better excellence, inclusiveness and accessibility in the Higher Education Sector. Karnataka Jnana Ayoga (KJA) has been setup in the state in the year 2008 for increasing the knowledge foundation and reservoir of the society. It has identified Higher Education as one of the primary focus areas that is required for building and transforming Karnataka state into a vibrant Knowledge based society.

Higher education means different things to different people. If we talk about higher education in terms of level, it means to gain higher educational qualification by the teaching-learning process in the higher educational institutes such as colleges and universities. Moreover higher education imparts knowledge, develops the student's ability and also give him/her a wider perspective of the world around. Higher education becomes input to the growth and development of industry and also seen as an opportunity to participate in the development process of the individual through a flexible education mode (Sharma).

Objectives of the Study

1. To examine the growth of higher education and enrolment ratio in Karnataka.
2. To analyse the financial status and expenditure on higher education in Karnataka.
3. To offer policy suggestions to improve the higher education system in Karnataka.

Research Methodology

The present study is based on secondary data and collected from various sources like Statistical abstract of Karnataka and MHRD reports Government of India. The statistical tools used like percentage, average, CV and CAGR.

Result and Discussion

The first ever established higher education institution in the Karnataka state was the Second Grade College started by Madras Government at Mangalore in 1869. The first university in the state was the Mysore University which came to be established in the year 1916 and the first engineering college was started in Bangalore in the year 1917. By 1956, 28 general colleges and 14 professional colleges were established in the state. Since then the number of colleges and universities imparting higher education has seen drastic rise (Table 1).

It presents the overall trend in the growth of higher educational institutions in Karnataka during the period 2001-02 to 2015-16. During 2001, there were around 16 universities imparting higher education and around 866 colleges were affiliated to it. The demand for higher education has grown over the years. It has shown a considerable improvement over the respective period. Now in the year 2015-16, the total number of universities in the state stands around 52 with around 1529 colleges affiliated to it. The rate of growth of universities stood at CAGR of 7.64 per cent in Karnataka, while the total higher educational institutions have grown marginally with CAGR of 3.62 per cent. With regard to total number of higher education colleges in the state, we have general degree colleges and technical institutes.

Table 1: Growth of Higher Education institutions in Karnataka

Year	Total Universities	General Degree Colleges	Technical Institutes	Total Higher Educational Institutions
2001-02	16	460	406	866
2002-03	19	459	407	866
2003-04	19	466	416	882
2004-05	22	466	407	873
2005-06	23	466	407	873
2006-07	24	462	417	879
2007-08	26	638	469	1107
2008-09	30	647	547	1194
2009-10	37	652	618	1270
2010-11	43	651	638	1289
2011-12	43	669	645	1314
2012-13	45	674	671	1345
2013-14	45	677	685	1362
2014-15	51	731	796	1527
2015-16	52	732	796	1528
2016-17	52	733	796	1529
CAGR	7.64	2.95	4.30	3.62
CV	45.94	44.43	49.57	46.96

Source: Compiled from Statistical Abstract of Karnataka and MHRD reports

During the year 2001-02, there were more general degree colleges as compared to the technical institutes in the state. But since twelfth five-year plan, there are more technical institutes than the general degree colleges in the state. Further the rate of growth in terms of CAGR is also highest with regard to technical institutes than the general degree colleges in the state during the period 2001-2016. Further the growth of universities and higher educational institutes in the state is consistent which is evident from the values of Co-efficient of Variation which have not crossed 50 per cent. At present there are 733 general degree colleges and 796 technical institutes in the state imparting higher education.

Table 2 provides the growth of various types of technical institutes in Karnataka during the period 2000 to 2015. The number of Engineering Degree colleges in the state has progressed with growth rate of around 6.36 per cent, whereas the number of engineering diploma institutes have registered growth rate of around 3.29 per cent during this respective period. Besides these, there are industrial training units that impart technical know-how and skills to the technical graduates. They have recorded an increase of 6.51 per cent during the respective period. The

junior technical schools in the state have remained constant. Currently there are around 220 Engineering Degree Colleges, 312 Engineering diploma colleges, 258 Industrial Training Units and 6 Junior Technical Schools in the state.

Table 2: Growth of Technical institutes in Karnataka

Year	Engineering Degree	Engineering Diploma	Industrial Training Units	Junior Technical Schools	Total
2000-01	82	186	94	6	368
2001-02	112	186	102	6	406
2002-03	112	186	103	6	407
2003-04	120	186	104	6	416
2004-05	120	177	104	6	407
2005-06	120	177	104	6	407
2006-07	123	177	111	6	417
2007-08	138	177	148	6	469
2008-09	157	226	158	6	547
2009-10	174	280	158	6	618
2010-11	187	287	158	6	638
2011-12	190	291	158	6	645
2012-13	210	297	158	6	671
2013-14	215	306	158	6	685
2014-15	219	313	258	6	796
2015-16	220	312	258	6	796
CAGR	6.36	3.29	6.51	0.00	4.94

Source: Compiled from Statistical Abstract of Karnataka of various years

During the year 2000-01, the total enrolment across higher education in Karnataka stood at 552290, of which 39.64 per cent were females. The enrolment increased gradually over the years and stood at 1857946 in 2015-16, with growth rate of 8.42 per cent. The share of female enrolment also increased to 48.52 per cent during this year. Across gender, it is revealed that the rate of growth in female enrolment (9.88 per cent) is marginally high when compared to the rate of growth in male enrolment (7.29 per cent). There is consistent growth in the enrolment across higher education in India during this period as witnessed by the values of Co-efficient of Variation. It is relatively higher across female enrolment as compared to male enrolment.

Further during this period, there is gradual decline in share of male enrolment from 60.36 per cent in 2000-01 to that of 51.58 per cent in 2015-16. On the other hand, the share of female enrolment has seen considerable increase from 39.64 percent to that of 48.42 per cent during the same period. With this improvement, the Gender Parity Index with regard to enrolment of higher education has shown noteworthy improvement. It has risen from 0.66 to 0.94 during the same respective period. The share of male enrolment to the total enrolment is higher when compared to share of female enrolment to the total. On an average, the share of male and female enrolment to the total stood in the ratio of 56:44 during this respective period.

Table 3: Growth of Enrolment across higher education in Karnataka

Years	Total Enrolment	Male Enrolment		Female Enrolment		Gender Parity Index
		Number	% to total	Number	% to total	
2000-01	552290	333374	60.36	218916	39.64	0.66
2001-02	537027	322755	60.10	214272	39.90	0.66
2002-03	544355	328556	60.36	215799	39.64	0.66
2003-04	639190	376128	58.84	263062	41.16	0.70
2004-05	706241	393039	55.65	313202	44.35	0.80
2005-06	951786	565485	59.41	386301	40.59	0.68
2006-07	1061456	634160	59.74	427296	40.26	0.67
2007-08	873528	502554	57.53	370974	42.47	0.74
2008-09	1421886	801714	56.38	620172	43.62	0.77

2009-10	1260038	713536	56.63	546502	43.37	0.77
2010-11	1793043	965333	53.84	827710	46.16	0.86
2011-12	1778089	961249	54.06	816840	45.94	0.85
2012-13	1859579	986024	53.02	873555	46.98	0.89
2013-14	1902186	997910	52.46	904276	47.54	0.91
2014-15	1896905	986247	51.99	910658	48.01	0.92
2015-16	1857946	958378	51.58	899568	48.42	0.94
CAGR	8.42	7.29		9.88		
CV	45.16	40.65		50.99		

Source: Compiled from MHRD Reports

Table 4: Gross Enrolment Ratio across higher education in Karnataka

Years	Total	Male	Female	GPI*
2004-05	11.58	12.72	10.36	0.81
2005-06	13.74	15.76	11.73	0.74
2006-07	15.47	17.78	12.96	0.73
2007-08	12.90	14.30	11.40	0.80
2008-09	20.70	22.60	18.80	0.83
2009-10	18.10	19.80	16.30	0.82
2010-11	25.50	26.60	24.30	0.91
2011-12	23.80	24.90	22.70	0.91
2012-13	25.40	26.10	24.50	0.94
2013-14	26.20	26.70	25.60	0.96
2014-15	26.40	26.70	26.00	0.97
2015-16	26.10	26.30	25.90	0.98

Source: Compiled from MHRD Reports

Table 4 provides the trend of gender-wise GER across higher education in Karnataka. It reveals that during the year 2004-05, there was very low rate of participation. The overall GER, irrespective of gender stood at 11.58 per cent. Across gender, the GER of females was just 10.36 per cent slightly lower than the GER across males (12.72 per cent). Over the years, there was consistent improvement in the rate of participation across higher education. The overall GER improved to 26.10 per cent in the year 2015-16. The rate of GER across females increased to 25.90 per cent as against 26.30 percent of GER across males, but the rate of improvement during the period 2004-2015 is highest across females. The GER across males have increased by 13.58 points whereas GER across females has increased by 15.54 points during this respective period. Along with this improvement, the Gender Parity Index with regard to GER across higher education also registered increase from 0.81 in 2004-05 to that of 0.98 in 2015-16.

Table 5: Financial Status of Higher and Technical Education in Karnataka (Rs in crore)

Year	University and Higher Education		Technical Education		TOTAL	
	Allocated Budget	Amount Spent	Allocated Budget	Amount Spent	Allocated Budget	Amount Spent
2000-01	641.84	552.30	61.19	62.02	703.03	614.31
2001-02	377.27	445.06	63.54	73.49	440.81	518.55
2002-03	483.81	476.47	82.66	87.40	566.47	563.87
2003-04	495.90	476.02	85.32	69.55	581.22	545.56
2004-05	484.00	497.61	84.70	95.97	568.71	593.58
2005-06	506.55	508.84	160.72	169.25	667.27	678.08
2006-07	511.88	545.53	183.64	161.45	695.52	706.98
2007-08	621.43	606.63	193.26	161.79	814.69	768.42
2008-09	722.57	696.39	176.56	145.57	899.12	841.95
2009-10	732.63	752.22	156.60	175.65	889.23	927.87
2010-11	1311.44	1440.56	221.65	273.77	1533.08	1714.33
2011-12	1439.82	1603.86	393.60	398.45	1833.43	2002.31
2012-13	1803.37	1898.09	404.50	483.77	2207.88	2381.86
2013-14	2389.99	2050.85	592.61	681.04	2982.60	2731.89
2014-15	2596.47	2265.82	721.95	685.78	3318.42	2951.60
2015-16	2835.26	2667.66	713.22	694.78	3548.48	3362.45

2016-17	3386.03	-	794.81	-	4180.84	-
CAGR	10.3	10.3	16.3	16.3	11.1	11.2
CV	78.3	70.0	85.1	85.0	79.3	72.7

Source: "Detailed Estimates of Expenditure" of Budget Documents of Karnataka of various years

Table 5 provides the financial progress of higher and technical education in Karnataka since 2000-01. During this year, the total amount allocated was Rs 703.03 crore. The policy makers have given major importance to university and higher education as compared to that of technical education. During this year, the total budget allocated for university and higher education stood at Rs. 641.84 crore whereas the budget for technical education stood at Rs.61.19 crore. Nearly 91 per cent was allocated for university and higher education. Over the years, there was gradual increase in the amount allocated. Further in the year 2007-08 in the wake of inclusive growth approach, the growth in allocated budget on higher and technical education increased with an impressive growth rate of 21.4 per cent over the previous year. Across university and higher education, it registered an increase by 17.1 per cent over the previous year. The overall budget allocated increased considerably over the years and stood at Rs. 4180.84 crore during 2016-17 with CAGR of 11.1 percent during the period 2000-01 to 2016-17. The variation in terms of budget allocated across higher and technical education over the years is quite inconsistent as the value of Co-efficient has crossed 50 per cent. The rate of growth during this period is relatively higher across technical education (16.3 per cent) as against university and higher education (10.3 per cent) in Karnataka.

Table 6: Share of Amount Spent to the Allocated Budget on Education

Year	University and Higher Education	Technical Education	Total
2000-01	86.0	101.4	87.4
2001-02	118.0	115.7	117.6
2002-03	98.5	105.7	99.5
2003-04	96.0	81.5	93.9
2004-05	102.8	113.3	104.4
2005-06	100.5	105.3	101.6
2006-07	106.6	87.9	101.6
2007-08	97.6	83.7	94.3
2008-09	96.4	82.4	93.6
2009-10	102.7	112.2	104.3
2010-11	109.8	123.5	111.8
2011-12	111.4	101.2	109.2
2012-13	105.3	119.6	107.9
2013-14	85.8	114.9	91.6
2014-15	87.3	95.0	88.9
2015-16	94.1	97.4	94.8
CV	9.2	13.3	8.7
Average	99.9	102.5	100.2

Source: Compiled from MHRD Reports

With regard to share of expenditure incurred out of the total budget allocated across higher and technical education in Karnataka reveals that nearly more than 80 per cent of the amount has been utilized. The average share of amount spent on university and higher education during the period 2000 to 2015 stood at 99.9 per cent, whereas the average share across technical education has crossed 100 per cent. Further there is consistent growth in the share of expenditure incurred over the years in this regard.

Table 6: Expenditure Share of higher and technical education to growth parameters

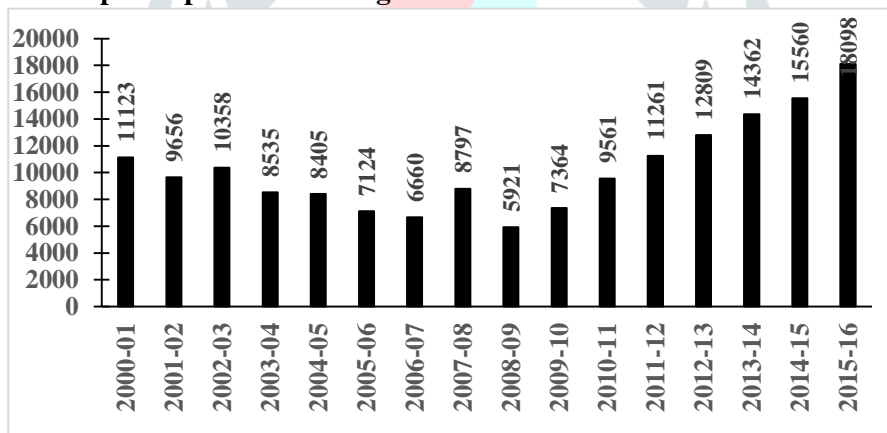
Year	University and Higher Education			Technical Education		
	Total Education Expenditure	Social Services	GSDP at constant prices	Total Education Expenditure	Social Services	GSDP at constant prices
2000-01	16.14	9.01	0.54	1.81	1.01	0.06
2001-02	12.96	6.92	0.42	2.14	1.14	0.07
2002-03	13.61	7.53	0.43	2.50	1.38	0.08
2003-04	12.98	6.83	0.42	1.90	1.00	0.06
2004-05	11.58	6.44	0.30	2.23	1.24	0.06

2005-06	10.56	5.72	0.28	3.51	1.90	0.09
2006-07	9.77	4.99	0.27	2.89	1.48	0.08
2007-08	9.12	4.62	0.27	2.43	1.23	0.07
2008-09	8.42	4.39	0.28	1.76	0.92	0.06
2009-10	9.10	3.93	0.30	2.12	0.92	0.07
2010-11	13.80	6.52	0.53	2.62	1.24	0.10
2011-12	13.25	6.19	0.27	3.29	1.54	0.07
2012-13	12.37	6.27	0.30	3.15	1.60	0.08
2013-14	13.03	5.75	0.29	4.33	1.91	0.10
2014-15	12.88	5.20	0.30	3.90	1.57	0.09
2015-16	14.67	5.17	0.33	3.82	1.35	0.09
CV	18.05	21.52	26.81	29.12	23.39	18.12
Average	12.14	5.97	0.34	2.78	1.34	0.08

Source: Compiled from MHRD Reports

The financial expenditure incurred with regard to higher and technical education in Karnataka is also analysed and assessed with important growth parameters. When seen to the total education expenditure, the average share of university and higher education during the period 2000 to 2015 stood at 12.14 per cent and the average share of technical education stood at 2.78 per cent. When seen to the expenditure spent on entire social services, the average share of university and higher education during the period 2000 to 2015 stood at 5.97 per cent and the average share of technical education stood at 1.34 per cent. Similarly, when seen to the total GSDP of the state at constant prices, the average share of university and higher education during the period 2000 to 2015 stood at 0.34 per cent and the average share of technical education stood at 0.08 per cent. In aggregate, it is around 0.42 per cent. The Kothari Commission has suggested that the share of higher education to the GNP should be around 1 per cent. If viewed in the context of state's share of higher education in the state's GSDP. In this respect, still there is gap of around 0.58 per cent to be achieved.

Figure 3: Per-capita expenditure on higher and technical education in Karnataka (in Rs.)



Source: Compiled from MHRD Reports

Per-capita expenditure is calculated by dividing the total expenditure on higher and technical education to that of the total enrolment shows in figure 3. It reveals that the per-capita expenditure spent on higher and technical education in Karnataka during the period 2000-01 to 2015-16 has grown consistently with CAGR of 3.1 per cent. It has increased from Rs. 11123 in 2000-01 to that of Rs. 18098 in 2015-16. During the initial half of the decade, there was moderate decline in the per-capita expenditure spent, but since the wake of inclusive growth in eleventh five-year plan, the per-capita expenditure spent has increased consistently and considerably. The value of Co-efficient of variation in this regard during this respective period has stood at 32.9 per cent, which is lower than 50 per cent.

Challenges and Suggestions of Higher Education System in India

Lack of Quality Research work: There is no deficiency of subsidizing for the top Indian Institutions, for example, IITs, IIMs and different establishments of national significance. Be that as it may, spending plan for the Research isn't under spent because of the deficient great quality research work. Because of the restricted spotlight on Research and Internationalization, not very many Indian Higher instructive organizations are all around perceived.

- Karnataka advanced education is looking with the issue of low quality of educational modules. In the vast majority of the higher instructive organizations educational modules is out-dated and immaterial.
- Shortage of Faculty and High Student-Faculty Ratio: In the majority of the state and local Universities in excess of 30 percent of staff positions are lying empty.
- Inadequate Infrastructure and Facilities: Apart from the very perceived higher Educational organizations in India the vast majority of the schools and colleges need in the essential and High-end examine offices. Numerous organizations are running without legitimate framework and Basic offices like library, lodgings, transport, sports office and so on which is attractive to rank the quality foundation.
- Low employability of alumni is one of the serious issues in India. Just a little Proportion of Indian alumnus is viewed as employable. Arrangement result additionally drop altogether as we move far from the top establishments.

Conclusion and Suggestions

There is a need to actualize imaginative and transformational approach structure essential to advanced education level to make Indian instructive framework all around progressively important and aggressive. In higher instructive foundations Industrial co-activity must be there for the improvement of educational modules, sorting out master addresses, temporary jobs, live undertakings, profession directing and situations. There is a need to concentrate on the alumni understudies by giving them such courses in which they can accomplish perfection, increase further learning of subject with the goal that they will land positions after enrollment in the organizations which would diminish pointless race to the advanced education.

Higher instructive organizations need to improve quality, notoriety and build up believability through understudy trade, personnel trade programs, and different joint efforts with superb national and worldwide higher instructive foundations. Government must advance cooperation between Indian advanced education foundations and top International establishments and furthermore produces linkage between national research labs and research focuses of top organizations for better quality and shared research.

Reference

- MHRD GOI (2013) "Educational Statistics at a Glance", *Bureau of Planning, Monitoring and Statistics, New Delhi*.
- MHRD GOI (2014) "Indian Stand Classification of Education (In SCED) Department of Higher Education", *Ministry of Human Resource Development, Government of India*.
- Sharma and Sharma (2015) "Indian Higher Education System: Challenges and Suggestions", *Electronic Journal for Inclusive Education Volume 3, 2015*.
- K M Joshi and Kinjal Vijay Ahir (2013) "Indian Higher Education: Some Reflections" *Intellectual Economics 2013, Vol. 7, No. 1(15), p. 42-53*