

## Financial Performance Analysis of one of the leading Indian Sanskrit Universities - Rashtriya Sanskrit Vidyapeetha (RSVP), Tirupati

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Article Info Volume 83 Page Number: 6807 - 6817 Publication Issue: March - April 2020

#### Abstract:

Purpose of this Study:

The present study analyses the financial performance of an Indian Sanskrit University whose main objective is to promote the Cultural Renaissance of the ancient Indian civilisation, in order to understand the limitations of financial metrics in evaluating the socio-cultural outcomes expected from the non-commercial Service sector.

#### Methodology:

The motivation for this study is the 2017 article published in the Journal of Competitiveness, titled, "Financial Performance Determinants of Organisations" by Boyara, University of Debrecan, Hungary (Vol 9/Issue 3/ Sep 2017). The major finding of this study is that Asset Structure is insignificant in determining the financial performance of the Service sector.

This study on the financial performance has been based on the Annual Reports of the RSVP over the 10 year period ending 31.03.2019. The trends in Total Income (R), Total Expenditure (Z), Total Asset-base (A) and Fixed Asset-base (F) have been plotted using the Linear model. The significance of the Regression coefficients were tested using the F-values.

### Main Findings of this Study:

- a) The slope 'b1' (regression coefficient) of the trend-line for Fixed-assets was 'Not' significant and therefore the correlation coefficient (r) between the Fixed asset base (F) and the Excess of Income over Expenditure  $\{\Pi=(R-Z)\}$  has been calculated. The correlation coefficient was very close to zero, thereby indicating that the fixed asset base has an 'insignificant' impact on the financial performance of the Sanskrit University. This has partially validated the findings of the earlier study referred above.
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- b) Financial Performance yard-sticks, by themselves, are inadequate to guide the policy-makers in evaluating the organizations working on the Socio-cultural objectives.

#### Practical Applications of this Study:

The Policy-makers would be encouraged to look beyond the conventional financial metrics for evaluating the 'non-financial' outcomes expected from the Sociocultural organizations.



New Insights / Original ideas emanating from this Study:

Article History Article Received: 24 July 2019 Revised: 12 September 2019 Accepted: 15 February 2020

Publication: 05 April 2020

This study opens up new avenues of research into the additional parametric inputs needed for assessing organisational effectiveness in the 'not for profit' enterprises.

**Keywords:**. Performance of Culture-promotion institutions, Limitations of Financial Performance yard-sticks, Indian Sanskrit Universities, Trend fitting, Asset-structure significance.

#### I. INTRODUCTION:

About the Organisation RSVP (Rashtriya Sanskrit VidhyaPeetha, Tirupati): This is one of the reputed Indian Sanskrit Universities which is working towards the broader cultural objectives of the nation. It has been recognised as a centre of Excellence in the field of Traditional Sastras that hold testimony to the richness of the ancient Indian culture and tradition. A large number of research projects were initiated to preserve the ancient manuscripts and decipher their contents with the help of scholars possessing knowledge about the ancient scripts and their interpretation. The University also encourages the use of modern technology to facilitate the researchers.

This University was established in the famous pilgrim town (Tirupati) in the Indian state of Andhra Pradesh in the year 1961. Since then, this organisation has grown from a modest Sanskrit institution to attain the status of a full-fledged university which offers courses in several Sanskrit and allied disciplines across a spectrum of courses commencing from undergraduate to post-doctoral level. This is a NAAC (National Assessment and Accreditation Council) rated institution and has been ranked as the best among the Indian Sanskrit universities by the committee appointed by the Ministry of Human Resources. The Government of Orissa has established the Orissa chair to facilitate the research into the cultural heritage of India.

The Spirituality in India had been guiding the sociocultural lifestyle of the citizens of this country until the establishment of the foreign rule. The ideological orientation of the foreign rules had gradually impacted the socio-cultural value systems of the native citizens and gave way to forced socio-cultural transformation across several centuries of subjugation. However, the restoration of self-rule in the 1940s has not automatically revived the cultural glory of the ancient civilisation as some of the socio-cultural transformations were irreversible.

The present day world has started realising the limitations of the materialistically driven lifestyles in view of the impending environmental disasters likely to result therefrom. As a result, some of the researchers have been advocating the use of environment friendly methods such as natural farming (that avoids the use of chemical fertilisers and pesticides) and a switch over to renewable energy sources for achieving the sustainable goals. In this context, the ancient world civilisations could provide a valuable guidance as the socio-cultural progress of the early period's maintained harmony with the nature. For instance, Germany is the major western republic that has been working on the Sanskrit literature to gain valuable insights into the ancient Indian civilisation.

The present Indian government has identified the need for the country to reflect upon its ancient wisdom in order to address some of the problems faced by the present day citizens. In this regard, it may be noted that the medical practices of the ancient Indian civilisation applied the causal linkages that were intrinsically different from the causal linkages adopted by modern medical practitioners. The seemingly simplistic 'panchaboothas' (the five prime elements) concept of matter as opposed to the periodic table analysis of elements makes the ancient indian medicine more 'nature-friendly'. In other words, the modern societies are gradually drifting towards ancient knowledge in their quest for solutions to their current predicaments. Thus, the Sanskrit universities could make valuable contributions in understanding the ancient practices.

#### II. LITERATURE REVIEW

Current state of research on Financial Performance Analysis and its linkages to Organisational effectiveness:

The main purpose of financial performance analysis, traditionally, has been limited to ensuring that the interests of the owners are safeguarded and their wealth is maximised. Any standard text would mention this point as the 'Shareholder Wealth Maximisation' goal of Finance. However, several changes have taken place in way societies view organisations and their collaborative impact on socio-economic cultural environment in which they operate. Further, as the number of organisations with socio-cultural objectives



increase, it becomes imperative for management professionals to bring about the appropriate modifications in the performance metrics so as to improve the quality of performance evaluation in tune with the complex goals set for the organisations. The present study is about a Sanskrit University whose objectives are largely 'non-commercial' and therefore, some of the following related articles were examined in this context so as to get some useful insights.

- "Financial Performance Determinants of Organizations" Bayara, University of Debrecen, Hungary
  published in Journal of Competitiveness, Vol9/Issue3/2017.
- "Corporate Purpose and Firm Performance", Andrea Prat, Columbia University and George Seraseim, Harvard Business School, Working Paper 17-023/2016.
- "A Study on the Financial Performance of select IT and IteS companies listed on NSE, India" by Roopa T.N and Chaya Devi, H.B, Bharatiar University, Coimbatore published in International Journal of Latest Engineering and Management Research Vol2/Issue11/2017
- "Towards a Subjective Measurement Model of Firm Performance" by Juliana Santos and LuizBrito, Lancaster University, UK, published in the Brazilian Administration Review, Vol9/Spl Issue/2012.

Some of the above studies have suggested that there is a need to look beyond the Financial Performance parameters in order to assess the effectiveness of organisational performance. Such an approach becomes more relevant in the context of organisations having 'Socio-cultural' objectives.

#### III. RESEARCH METHODOLOGY:

The present study has the following objectives.

- To analyse the changes in the annual Income, Expenditure and Asset-base of the University with reference to the Time-axis so as to identify the Trends in these parameters.
- To ascertain the significance of the Regression coefficients determining the Trend equations.
- To evaluate the effect of changes in Asset-base on the Annual Profits of the University to examine the relative impact of the Fixed Asset-base on the Annual Profits.

As this study has been confined to a single organisation and its financial performance indicators, the analysis has been entirely based on Secondary Data collected from the University's Annual Reports over the 10 year period ending 31.03.2019. The financial parameters have been analysed using the basic statistical measures to identify the causal relationships amongst the major parameters.

For the convenience of the readers, the details of the financial data and the mechanics of computation has been relegated to the Appendix and so the body of the article presents the summary of the Trend equations as well as the other important statistical measures that support the inferences drawn from this study.

#### IV. DATA ANALYSIS:

The details of the Financial Performance Analysis are included in the Appendix and the summary of the findings are presented below. The entire data is contained in eight tables bearing the headings Table 0 to Table 7 and the main points are included under this section.

a) Table 0 presents an extract of the 10 year Annual Reports of the University. The details of Income (R), Expenditure (Z) and Asset-base (A) are stated in money terms as INR (Rs.Lakhs).

Table – T0	)											
10-year Financial Summary of RastriyaVidyapeetha,												
Tirupati Apr 2009 – Mar 2019												
	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-	2017-	2018-		
	10	11	12	13	14	15	16	17	18	19		
1. Fixed Assets	1143.13	1714.94	1714.46	1253.55	1378.9	1516.79	1668.47	1545.54	1563.22	1582.03		
2.Investments	724	613.53	1558.48	1129.56	1242.52	1366.77	1503.45	1532.59	1674.18	1968.68		
3. Current Assets	1770.31	2344.04	2966.87	4051.7	4023.89	3915.25	3858.34	4818.61	6347.07	6385.35		
4.Others	0	0	0	0	0	0	0	0	0	0		
5. Total Assets	3637.44	4672.51	6239.81	6434.81	6645.31	6798.81	7030.26	7896.74	9584.47	9936.06		



Income 8.73 11.49 14.7 188.59 207.45 228.2 251.02 264.6 456.22 330.6	_
	$\mathbf{C}$
7.Grants 1456.25 1819.07 2549.67 1796.49 1976.14 2173.75 2391.12 2690.8 3192.74 472	
8.Other 31.23 40.16 53.54 683.68 570.84 410.5 203.52 224.18 150.53 338.4	12
9.Total Income 1496.21 1870.72 2617.91 2668.76 2754.43 2812.45 2845.66 3179.58 3799.49 5389.	03
10.Establishment	
expenses 646.26 918.15 1020.63 1254.15 1379.56 1517.52 1669.27 1931.23 1870.59 2919.	28
11.Academic	
Expenses 207.78 228.56 251.42 276.56 318.31 253.76 297.8	37
12. Administrative	
Expenses 212.06 333.64 302.53 233.96 258.75 284.62 313.08 233.94 304.09 312.0	)9
13.others 113.3 166 173.92 0 172.61 189.87 227.94 389.34 380.54 573.6	54
14.Total	
Expenditure 971.62 1417.79 1497.08 1695.89 2039.48 2243.43 2486.85 2872.82 2808.98 4102.	88

b) Table 1 gives the details of Annual Income(R), Expenditure (Z) and Asset-base (A) year-wise to calculate the 10year average and the CAGR (compound annual growth rate). The 10 year average for R=2943.42; Z=2213.68 and A=6887.62. Further, g(R)=15.3%; g(Z)=17.36% and g(A)=11.81% which are the annual growth rates.

10 year T	Trend Analysi	s – Total In	come	Total Expenditu			Asset Base		
	Total	Growth		Total	Growth		Asset Base	Growth	Fixed
year	Income Rs	rate – Y	year	Expenditure	rate - Y on	year	Rs. Lakhs	rate - Y	Assets Rs.
	in Lakhs	on Y (%)		Rs in Lakhs	Y (%)		Ks. Lakiis	on Y (%)	Lakhs
			2009-			2009-			
2009-10	1496.21	25.03	10	971.62	45.92	10	3637.44	28.46	1143.13
			2010-			2010-			
2010-11	1870.72	39.94	11	1417.79	5.59	11	4672.51	33.54	1714.94
			2011-			2011-			
2011-12	2617.91	1.94	12	1497.08	13.28	12	6239.81	3.13	1714.46
			2012-			2012-			
2012-13	2668.76	3.21	13	1695.89	20.26	13	6434.81	3.27	1253.55
			2013-			2013-			
2013-14	2754.43	2.11	14	2039.48	10	14	6645.31	2.31	1378.9
	2012 17	4.40	2014-	22.12.12	400	2014-	<b></b> 00 04		4.74.5.70
2014-15	2812.45	1.18	15	2243.43	10.85	15	6798.81	3.4	1516.79
<b>A</b> 04 <b>T</b> 46	2017	44.50	2015-	240505	4	2015-	<b>5</b> 000 0 5	10.00	4 5 5 0 4 7
2015-16	2845.66	11.73	16	2486.85	15.52	16	7030.26	12.33	1668.47
2016 15	2170.50	10.5	2016-	2072.02	2.22	2016-	700674	21.27	1545 54
2016-17	3179.58	19.5	17	2872.82	-2.22	17	7896.74	21.37	1545.54
2015 10	2700.40	41.04	2017-	2000.00	46.06	2017-	0504.47	2.67	1562.22
2017-18	3799.49	41.84	18	2808.98	46.06	18	9584.47	3.67	1563.22
2010 10	£200.02		2018-	4100.00		2018-	0026.06		1502.02
2018-19	5389.03	-	19	4102.88		19	9936.06		1582.03
Average		16.20			10.26			10.20	
Growth (	%)	16.28			18.36	17.26		12.39	
CAGR	and Arrana as t	15.3				17.36			11.81
(Compou	ind Average	Growth rate	- %age						
) Maan						Maar			
Mean	2042 424			Maan Evn	2212 692	Mean	6007 600		
Income	2943.424			Mean Exp	2213.682	Asset	6887.622		



c) Table 2 fits the linear function for Income (R) as a function of 'T' the time in years such that T=1 for the year 2009-10 and so on. The Regression coefficient 'b1'=314.75 which is found to be significant based on the F-test where F-critical = 3.46 (degrees of freedom-(1,8)).

The linear equation is of the form, R=b0+b1\*T where bo=Rs.1212.30 lakhs and b1=Rs.314.75lakhs per year.

		'R' is a Li function o R =	inear of 'T'	where 'R'	= Income			Error^2		
			(for T= 1 t	o 10)			R=f(T)	=		
	yea r (T)		<b>Deviation</b> s	Deviation s	Deviation ^2		linearfunct n.	(f(T)- R)^2	$\begin{array}{c} (f(T)\text{-}\\ \mu(R))^{\wedge}2 \end{array}$	
		( <b>R</b> )	$\mathbf{R} - \mu(\mathbf{R})$	Τ-μ(Τ)	(T- μ(T))^2	μ(R)*(T -μ(T)		mse	msr=ssr/ df	
		110 - 21			20.27		1.70.7 0.7	0.71	2006103.	
	1	1496.21	-1447.21	-4.5	20.25	6512.463	1527.05	951	98 1213566.	
	2	1870.72	-1072.7	-3.5	12.25	3754.464	1841.8	836		
	3	2617.91	-325.514	-2.5	6.25	813.785	2156.55	212853		
	4	2668.76	-274.664	-1.5	2.25	411.996	2471.3	38990		
	5	2754.43	-188.994	-0.5	0.25	94.497	2786.05	1000	69	F=MSR/MS
	6	2812.45	-130.974	0.5	0.25	-65.487	3100.8	83146	44 222906.7	
	7	2845.66	-97.764	1.5	2.25	-146.646	3415.55	324775	37 619180.1	
	8	3179.58	236.156	2.5	6.25	590.39	3730.3	303293		F-critical
	9	3799.49	856.066	3.5	12.25	2996.231 11005.22	4045.05	60300		(1,8)
Mea	10	5389.03	2445.61	4.5	20.25	7	4359.8	1059314	3	$'(\alpha - 0.10)$
n T - μ(T)					Cov (R,T)=	2596.692				3.4579
Mean	R -			Variance-			MSE /	260682.2		
μ(R)		2943.424		T= Std. Dev-	8.25		Mean Squared	5 d.f =10-		
		1h1-C(1	D T)/U	T=	2.87		Err.	2=8	d.f = 1	
		nce T =	R,T)/Varia	314.7505 1212.296						
		$b0 = \mu(R)$	$-b1*\mu(T) =$							

d) Table 3 fits the linear function for Expenditure (Z). The Regression coefficient 'b1'=287.12 which is found to be significant.

The linear equation is of the form, Z=b0+b1\*T where b0=Rs 634.51 lakhs and b1=Rs 287.12 lakhs

1/71 · T ·	1 77 41 15 14
'Z' is a Linear	where Z is the Expenditure



		function of	<b>'T'</b>							
		Z = b0+b1*T	( <b>for T</b> = 1	l to 10)				mse	msr=ssr /df	
r		Expenditu re=	<b>Deviati</b> ons	<b>Deviati</b> ons	Deviatio n^2 (T-	Cov (Z,T) dev(Z)*dev		(g(T)- Z)^2	$\begin{array}{c} (g(T)\text{-}\\ \mu(Z))^{\wedge}2\\ msr=ssr \end{array}$	
		'=Z	$\mathbf{Z}$ - $\mu(\mathbf{Z})$	$T-\mu(T)$	$\mu(T))^2$	<b>(T)</b>	Z=g(T)	mse	/df	
			-						1669398	
	1	971.62	1242.06	-4.5	20.25	5589.279	921.63		.37	
			-						1009888	
	2	1417.79	795.892	-3.5	12.25	2785.622	1208.75	16		
			-						515239.	
	3	1497.08	716.602	-2.5	6.25	1791.505	1495.88			
			-					7588.152		
	4	1695.89	517.792	-1.5	2.25	776.688	1783	1		
	_	2020 40	151202	0.5	0.25	07.101	2070.12	020 000 6	20610.0	
	5	2039.48	174.202	-0.5	0.25	87.101	2070.12	938.8096		E MCD /
		22.42.42	20.740	0.5	0.05	14074	2257.24	12952.71		F=MSR/
	6	2243.43	29.748	0.5	0.25	14.874	2357.24		994	MSE
	7	2496.95	272 169	1.5	2.25	400.752	2644.27	24812.55		87.713044
	7	2486.85	273.168	1.5	2.25	409.752	2644.37			2
	8	2072 02	<i>65</i> 0 120	2.5	6.25	1647.845	2931.49	3442.168 9		
	0	2012.02	659.138	2.3	0.23	1047.843	2931.49		1009880	F-critical
	9	2000 00	595.298	3.5	12.25	2083.543	3218.61		.29	(1,8)
	7	2000.90	393.490	3.3	12.23	2003.343	3216.01		1669388	$(\alpha - (1,8))$
1	10	4102.88	1889.2	4.5	20.25	8501.391	3505.73		.03	0.10)
Mea n T	10	4102.00	1007.2	4.5		0301.371	3303.73	223	.03	0.10)
μ(T					Cov					
) 5 Mea n Z	5.5				(Z,T)=	2368.76				3.4579
- μ(Z				Varianc			MSE /	77539 67	6801241	775
μ(Z )		2213.682		e-T=	8.25		Mean	7	.14	40 6801241
,		2213.002		Std.	0.23		Squared	d.f =10-	.17	10 0001241
				Dev-T=	2.87		Err.	2=8	d.f = 1	
		'b1=Cov(Z,	T)/Varian		2.07		<b></b>	_ 0	I	
		ce T =	- <i>j</i> , . arrair	4						
		- * =		634.508						
		$b0=\mu(Z)-b1$	$l*\mu(T) =$	8						

e) Table 4 fits the linear function for Asset-base (A) or Total of Fixed and non-fixed Assets. The Regression coefficient 'b1'=613.92 which is found to be significant.

The linear equation is of the form, A=b0+b1\*T where b0= Rs 3511.10 lakhs and b1= Rs 613.92 lakhs.

yea	Linear	
r	<b>Function of</b>	msr=ssr/d
<b>(T)</b>	Asset	mse f



		base(A) with' T' as the independe nt variable								
		nt variable			(T-	dev(A)*dev(			(h(T)-	
		'=A	$A-\mu(A)$	$T$ - $\mu(T)$	$\mu(T)$ )^2			(h(T)-A)^2		
_			_	•	-		4125.0		7632025.0	
	1	3637.44	3250.18	-4.5	20.25	14625.819	1	237724.5049	6	
			-						4616877.3	
	2	4672.51	2215.11	-3.5	12.25	7752.892		4411.6164		
			-				5352.8		2355555.7	
	3	6239.81	647.812	-2.5	6.25	1619.53		786715.7809		
			-						847986.82	
	4	6434.81	452.812	-1.5	2.25	679.218		219070.8025		
	_		-				6580.6		94219.530	
	5	6645.31	242.312	-0.5	0.25	121.156		4178.3296		E 1495 249
	_	<b>47</b> 00.01	00.012	0.7	0.25	44.40	7194.5			F=MSR/MS
	6	6/98.81	-88.812	0.5	0.25	-44.406	8	156633.8929		E
	7	7020.26	142 620	1 5	2.25	212.057	7000 5	605657 4076	848016.29	02.0629011
	7	7030.26	142.638	1.5	2.25	213.937	7808.5 8422.4	605657.4976	1	93.0038911
	8	7806 74	1009.12	2.5	6.25	2522.795		276328.9489	2255574.2	
	0	7090.74	1009.12	2.3	0.23	2322.193	9036.3			E critical
	9	0584.47	2696.85	3.5	12.25	9438.968		300457.4596		
		7304.47	2070.03	5.5	12.23	7430.700		300437.4370	7632058.2	
	10	9936.06	3048.44	4.5	20.25	13717 971		81693.0724		
Mea	10	7750.00	5010.11	1.5	20.23	13/1/.5/1	•	010/3.0721		(w 0.10)
n T -					Cov		6887.6			
μ(T)	5.5				(A,T)=	5064.79				3.4579
Mean					( , ,					
A -	68	887.62	Varia	ance-		MSE	Ε/ 33	4108.988 310	093482.	
$\mu(A)$		2	T=		8.25	Mea	n	2	5	
				Std.			Square			
				Dev-T=	2.87		d Err.	d.f = 10-2=8	d.f = 1	
		b1=Cov(Z,T)	')/Variance							
		T =		613.9						
				3511.0						
r		$b0 = \mu(A) - b1$	$*\mu(T) =$		5					

f) Table 5 fits the linear function of Fixed Asset-base (F). The Regression coefficient 'b1' is found to be 'Not' significant as the F- value calculated is less than F-critical. Hence, the Null hypothesis that b1=0 is Accepted.

The linear equation is 'not' valid because the regression coefficient is 'insignificant' and therefore there is 'No' discernible trend in the year to year changes in the Fixed Assets.

	Linear Function of Fixed Asset base(F) with' T' as the independent variable where											
	•						mse	msr=ssr/df				
				(T-								
year(T				$\mu(T))^{\wedge}$	dv(A)*dev(	F=p(T)		( <b>p</b> ( <b>T</b> )-				
)	'= <b>F</b>	$F-\mu(F)$	$T$ - $\mu(T)$	2	T)	)	$(p(T)-F)^2$	μ(F))^2				
1	1143.13	-364.973	-4.5	20.25	1642.3785	1414.6	73728.5409	8731.5942	F=MSR/MS			



							6		5	E
									5281.3649	
	2	1714.94	206.837	-3.5	12.25	-723.9295		78125.8401		0.9478403
							1456.1			
	3	1714.46	206.357	-2.5	6.25	-515.8925		66703.3929		
	4	1253.55	-254.553	-1.5	2.25	381.8295		49907.56		
	5	1378.9	-129.203	-0.5	0.25	64.6015		14118.1924		
	_						1518.4	2.8561	107.68212	The Null
	6	1516.79	8.687	0.5	0.25	4.3435	8	2.8561	9	Hypothesis
	_							=		
	7	1668.47	160.367	1.5	2.25	240.5505	4	16700.3929		
	0	151551	25.425	2.5	- O.T	02.5025	15.00	200 0016	2693.2986	
	8	1545.54	37.437	2.5	6.25	93.5925	1560	209.0916	I 5200 4020	regression
	0	1562.00	55 117	2.5	10.05	102 0005	1580.7	200 0025	5280.4928	Coefficient
	9	1563.22	55.117	3.5	12.25	192.9095		308.0025		
	10	1502.02	72.027	1.5	20.25	222 6715	1601.5	380.25	8/28.6043	
Maa	10	1582.03	73.927	4.5	20.25	332.6/13	3	380.25	3	
Mea					Carr					
n T - μ(T)	5.5				Cov (A,T)=	171.3055				
μ(1) Mea	5.5				(A,1)	171.3033				
n F -				Variance-				37523.0149	35565 825	
μ(F)		1508.103		T=	8 25			37323.0147		
μ(1)		1300.103		Std. Dev-	0.23			d.f =10-	O	
				T=	2.87			2=8	d f -1	
	•	b1=Cov(Z,	T)/Varian		2.07			2 0	<b></b> -1	
	C	ce T =	- j, , arrair	20.7643						
	`			1393.8993						
	•	b0=μ(A)-b								
		F ( ) =	r. ( /							

g) Table 6 calculates the correlation coefficient 'r' between the Fixed Asset-base (F) and the excess of income over expenditure (R-Z). The 'r' value is 0.029 which indicates a near 'Zero' correlation. Hence, it is inferred that the Fixed Asset-base is no major effect on profits.

Calculation of Correlation coefficient (r) between the Fixed-asset base (F) and Excess of Income over Expenditure (R-Z) or ' $\Pi$ '

year	Fixed-assets	Inc-Exp or	dev(F)	dev(II)	(dev(F))^2	(dev(Π))^2	dev(F)*dev(Π)
	'= <b>F</b>	Π=(R-Z)	$(F - \mu(F))$	$(\Pi - \mu(\Pi))$	Var (F)	Var(Π)	covar (F,II)
1	1143.13	524.59	-364.973	-205.152	133205.2907	42087.343	74874.9409
2	1714.94	452.93	206.837	-276.812	42781.54457	76624.883	-57254.96364
3	1714.46	1120.83	206.357	391.088	42583.21145	152949.82	80703.74642
4	1253.55	972.87	-254.553	243.128	64797.22981	59111.224	-61888.96178
5	1378.9	714.95	-129.203	-14.792	16693.41521	218.80326	1911.170776
6	1516.79	569.02	8.687	-160.722	75.463969	25831.561	-1396.192014
7	1668.47	358.81	160.367	-370.932	25717.57469	137590.55	-59485.25204



	8	1545.54	306.76	37.437	-422.982	1401.528969	178913.77	-15835.17713
	9	1563.22	990.51	55.117	260.768	3037.883689	67999.95	14372.74986
	10	1582.03	1286.15	73.927	556.408	5465.201329	309589.86	41133.57422
							Cov.(F, $\Pi$ )=	1713.563554
Mean F -								
μ(F)		1508.103				$Var(\Pi)=$	105091.78	
Mean $\Pi$ - $\mu(\Pi)$			729.742			Std.Dev( $\Pi$ )=	324.18	
					Var(F)=	33575.83444		
					Std.Dev(F)=	183.24		
			$r' = cov(F,\Pi)$	(S.D(F)*	$S.D(\Pi)$			
			'0.029 approx		0.0288465			
			(indicates that	t there is	'NO' correlation	on)		

# h) Table 7 shows that the correlation coefficient 'r' between the Asset-base (total assets) and the excess of income over expenditure (R-Z) is 0.48 indicating a fair degree of positive correlation between the two parameters.

Correlation bet. Asset-base (A) & Income-Expenditure)		(Π)		
$(\mathbf{A} - \boldsymbol{\mu}(\mathbf{A}))$	$(\Pi - \mu(\Pi))$	Var (A)	Var(Π)	covar (A,∏)
-3250.182	-205.152	10563683.03	42087.343	666781.3377
-2215.112	-276.812	4906721.173	76624.883	613169.5829
-647.812	391.088	419660.3873	152949.82	-253351.4995
-452.812	243.128	205038.7073	59111.224	-110091.2759
-242.312	-14.792	58715.10534	218.80326	3584.279104
-88.812	-160.722	7887.571344	25831.561	14274.04226
142.638	-370.932	20345.59904	137590.55	-52908.99862
1009.118	-422.982	1018319.138	178913.77	-426838.7499
2696.848	260.768	7272989.135	67999.95	703251.6593
3048.438	556.408	9292974.24	309589.86	1696175.291
			$Cov.(A,\Pi)=$	285404.5668
		Var (∏)=	105091.78	
		Std.Dev $(\Pi)$ =	324.18	
Var(A)=		3376633.409	)	
Std.Dev(A) =		1837.56	•	
$'r' = cov(A,\Pi)/(S.D(A)*S.D(\Pi))$				
'0.48 approx.	0.4791077			

### V. DISCUSSION AND CONCLUSIONS:

The data-base for the analysis presented in this article is presented in Table-0; the other tables have been derived from this table through mathematical/statistical computations. The tables T-1, T-2 and T-3 form the analysis for gaining an insight into the 10-year trends in the Income, Expenditure and the Asset-base of the

organisation which is essentially the 1st objective of this study.. The 10year Average income is Rs.2943.42 lakhs which shows an average annual increase of Rs.314.75 lakhs which is also called the Beta slope of the Income trend line. Similarly, the Average Expenditure is Rs 2213.68 lakhs and the slope of Expenditure Trend line is Rs 287.12 lakhs. Likewise, the Average Asset-base is Rs 6887.62 lakhs and the slope of the Asset-base Trend line



is Rs 613.91 lakhs.

The 2nd objective is to statistically test the Beta slopes of the trend lines, in order to determine the strength of the 'Time-dependent' variation of each of the three parameters, Income, Expenditure and Asset-base. The Tables T-4, T-5 and T-6 form the basis for our finding that the Beta slope in respect of Asset-base is Not significance and hence the Trend-line derived for the Asset-base has a weak 'Time-dependence. However, the other two parameters (Income and Expenditure) are found to have significant Beta slopes.

The 3rd objective is to ascertain the relationship between the Fixed-asset base and Profitability as well as the correlation between Asset-base and the Profitability. While there is a near 'Zero' correlation between the Fixed asset base and profitability, the Regression coefficient between the Asset base and Profitability is +0.48 which suggests a fair degree of positive relationship between the two.

Based on the above analysis, it has been confirmed that the Fixed-asset base has negligible impact on the profits of the Sanskrit University. More-over, as Universities are essentially service-based organizations, the quantum of Fixed Assets employed does not significantly impact its performance. However, the quantum of the Total Asset-base has a moderately positive impact on the profitability of the Sanskrit University.

The Government policy towards Sanskrit Universities in India is a little different from that of the other universities as the Government considers the Sanskrit Universities as key players in the preservation of India's tradition and culture. Therefore, the Sanskrit universities have undertaken many Research projects which qualify for adequate cash-inflows in the form of Government Grants are not linked to the regular academic programmes run by the University. In contrast, most of the other Public universities are encouraged to become 'self-supporting'. Thus, the research projects undertaken by the Sanskrit Universities cannot be treated on par with commercial activities.

In view of the above, the Financial Performance measures alone are, by themselves, not adequate to evaluate the effectiveness of the Sanskrit universities. However, the findings presented in the earlier section lead us to the following broad conclusions.

• There is a discernible positive trend in all the three

broad financial parameters (R,Z and A) over the 10 year period ending 31.03.2019. While the Slope of the Trend line (b1) in respect of the Asset-base is highest at 613.92, it is lowest in respect of Expenditure at 287.12.

- There is a positive slope differential  $\{b1(R)-b1(Z)\}$  which is +27.63 between 'R' and 'Z' pointing to a positive trend in profits over the 10 year period.
- The positive trend depicted by the linear regression function for Fixed Asset-base is found to be 'Not' significant which only confirms the findings of the similar studies in respect of the Services sector. In other words, when the basic fixed asset infrastructure is established, the further additions to fixed-asset base may be mainly in the form of renovation of old assets which may be a minor fraction of the Fixed Asset-base.

#### VI. SUGGESTIONS:

The Suggestions do not directly flow out of the Financial Analysis because of the limitations of the Financial Metrics in guiding the 'not for profit' organisations in their 'Socio-cultural' endeavours. The Government, being the owner of the Sanskrit universities, should evolve mechanisms to evaluate the performance of the universities vis-a-vis the Socio-cultural objectives that these universities are expected to accomplish. Recently, the RSVP, Tirupati has been elevated to the status of a Central University, based on the outstanding achievements of this organisation in the field of Research into the 'nuances' of the ancient Vedic Knowledge.

At present, the Government's evaluation approach is a more simplistic one that involves a 'Budget vs. Actual' comparison. However, the parametric goal-set for Socio-cultural organisations should include 'quantifiable' metrics to evaluate the achievement levels on the 'socio-cultural' objectives. For this purpose, the Government may encourage the NAAC (National Assessment and Accreditation Council) to design 'innovative' evaluation metrics to promote the Socio-cultural goal-seeking endeavours amongst the Sanskrit Universities.

Further, the Government may encourage the learned intellectuals working in the Universities (and specifically in the Sanskrit Universities) to develop 'Self-regulation' and 'Self-assessment' skills amongst its staff in order to achieve 'excellence' in their socio-cultural and knowledge-building endeavours.

Thus, the need for quantification of relatively 'subjective' phenomena opens up Research Avenues involving a great deal of inter-disciplinary co-operation in designing the



Performance-metrics suitable for organisations pursuing Socio-cultural goals.

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