Intellectual Capital Management in Universities of RayalaSeema Region of Andhra Pradesh in India

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ABSTRACT: Intellectual Capital Management is one of the ground-breaking techniques to scrutinize and assess various assets of a University in India. University is a place where in the input and output are the same and there is a lacunae in the management of intellectual capital, and there are no specific tools wherein all the intangible resources can be analysed with a valuation of intellectual assets. Universities are the sources of knowledge input and output it is a place where knowledge is enhanced and grown. Universities are knowledge factories. In India usually there are public universities, deemed-universities, private universities, research institutions, research and development institutes post graduate colleges etc. Intellectual Capital Management helps in the knowledge management of the University and also helps in effective performance. This paper purports to study the intellectual capital management in select universities of Andhra Pradesh in India with emphasis on demographic factors especially age, gender and experience of teaching fraternity of select sample universities.

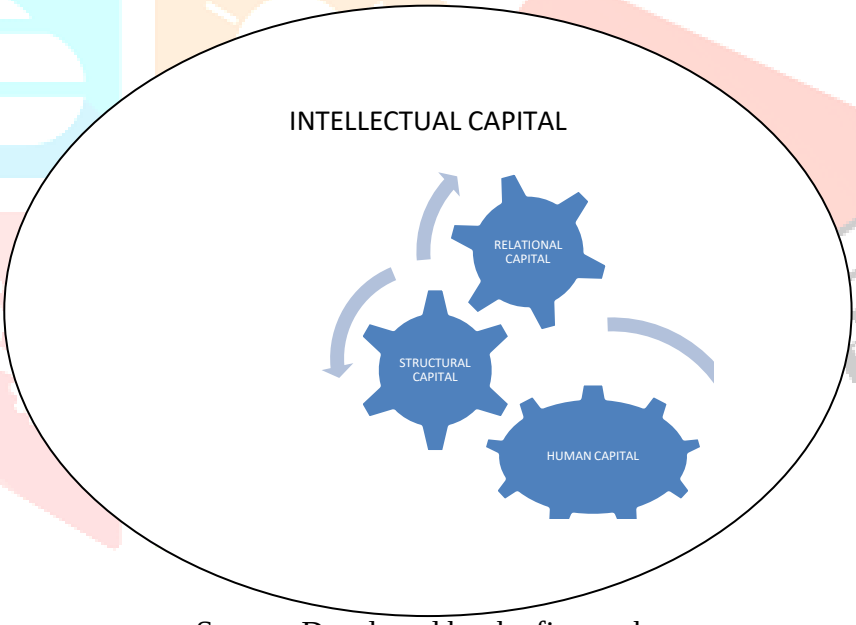
Keywords: Intellectual Capital, Universities, demographic factors

1.Introduction: Intellectual Capital Management is one of the much discussed and put into least practice with definite procedure and steps in both the academia and organizations. In the eon of fast pace change and multifarious developments of business and academia with the advent of globalization, liberalization and privatization in India and various economic reforms it is of pivotal importance to the Institutions of higher learning to keep up with the drastic changes that are taking place in the education sector with the changes in the policies of Foreign Direct Investments and Foreign Institutional Investments. To face the global competition it is very essential to go in with various reformatory measures and value the key players in the organization and one such measure is the Intellectual Capital Management in Academia and Industries. Efficiency and Effectiveness of an Institution is linked with Intellectual Capital Management which is an intangible factor and this factor if strategically managed increases the performance in Industry as well as Academia.Marr and

Schiuma[i] said that it is the group of knowledge assets that are attributed to an organization, most significantly contribute, to an improved competitive position of this organization, by adding value to the defined key stakeholders. It includes human assets, and physical assets. Kaplan and Norton[ii] expressed that Intangible assets consist of human capital, i.e. skills, talent, and knowledge, information capital, i.e., databases, information systems, and technology infrastructure, organizational capital, i.e. culture, leadership style, ability to share knowledge articulated that Intangible assets are non-financial fixed assets that do not have physical substance but are identifiable and controlled by the entity through custody and legal rights.

2.Components There are various components in intellectual capital management according to different schools of thought different classification persists.In Institutions of higher learning broadly three components are considered by many knowledge management experts. They are Human Capital, Structural Capital and Relational Capital.

Figure 1:INTELLECTUAL CAPITAL COMPONENTS



Source: Developed by the first author

3. Significance of Intellectual Capital in Universities

1. Innovative approach to evaluate the performance and efficiency of universities.
2. Weightage is given to the Accreditation agencies and ratingsgiven by these agencies is an indicator of performance.
3. Internal Quality Assurance Cells has been established to ensure quality and various assessment procedures like PBAS and API Scores are implemented very recently.
4. Social Responsibility is also a criteria apart from Teaching and Research.

5. Autonomy of Universities.
6. Right to Information Act makes the universities mandatory for Information transparency.

4. Research Method and Design

4.1 *Objectives of the Study*

- To make out the importance of intellectual capital management in institutions of higher learning especially universities.
- To study the demographic factors in intellectual capital management in universities.
- To emphasize the urgency of intellectual capital management in universities

4.2 *Aim* :To present an overview of the demographic factors considered for the study.

4.3*Nature of Research* It is empirical and descriptive in nature

4.4*Research Design Process*

The research design process followed a three stage approach, i)questionnaire design ii)a pilot survey and (3)main survey. The first step involved the operationalisation of measures,which was achieved using the literature review to measure the constructs and design the draft questionnaire for pre testing. In step two 300 draft questionnaires and schedules were directly administered to permanent teaching fraternity in select universities of Andhra Pradesh.200 questionnaires and schedules were perfectly filled and complete data collected and assessed using Factor analysis and Reliability testing to refine and finalise the questionnaire administered to the main survey.For the last step,final questionnaire and schedules were used to collect data from 267 permanent teaching fraternity from select universities in Andhra Pradesh.

4.5 Sample Frame

In this study, the sampling frame were based on the list of all universities located in Rayalaseema region of Andhra Pradesh.

4.6 *Sampling technique*

Simple Random sampling technique is used for collecting information from the selected respondents.

4.7 *Method of Data Collection*

In this research data is collected from the sample respondents with the help of administration of structured questionnaire.

4.8 *Tools of Data Analysis*

The collected data is analysed with the help of SPSS (20 version).Percentage method and histograms are used. Reliability Tests is also performed

4.1 Demographic Profile of Respondents in Select Universities:

The demographic profile of respondents in the select sample universities in Andhra Pradesh was considered in the study. Variables such as Name of the University, Gender, Age, Experience, are taken into consideration for the study. To find out the relevance of the variables only the permanent teaching fraternity of the select sample universities is considered for the study. All the variables are thoroughly verified and placed in the tables along with histogram graphs.

4.2 The demographic factors considered for the study:

On the demographic factors mentioned in table 4.1 it is found that the sample teaching fraternity in SKU represents 15%; and JNTUA represents 6 %, SPMVV represents 21.7%,RU represents 9.0%, DU represents 7.5%, SVU represents 30%,YVU represents 10.9% In the department presently working in the select sample universities in Andhra Pradesh of India.As mentioned about the sample distribution in table 4.2 Science faculty represents 46.1%,Arts Stream represents 45.3%,Education 5.3%,Physical Education 3%.Overall representation gender wise in relevant field from the sample population is Male 49.8%, Female 50.2% which is presented in table 4.3. Overall representation of age-wise distribution of sample mentioned in table 4.4 for the purpose of this study is 26-35 yrs is 8.6%, 36-45 yrs is 27%, 46-55 yrs is 35.2%, 56-65 yrs is 29.2%.Overall representation of Experience from the sample population is 1-8 yrs is 29.2%, 9-17 yrs is 31.8,18-25 is 31.1%, 26-35 is 7.9% as mentioned in table 4.5.

The sample population in the select universities in all parameters are thoroughly identified and found that the sample population was suitable for the present study and are on the permanent rolls in the cadres of Assistant Professors, Associate Professors, and Professors as per the norms of the UGC. The Tables and Graphical representation of the data is presented as follows

4.3 Reliability Test

Reliability is considered an important aspect in any research method. According to Hinkin-the evolution of reliability could be considered part of the testing stage of newly developed measure.Reliability measure indicates the extent to which the measure is without bias and offers consistent measurement across time and across the various items in the instrument as per Sekaran,[iii]. The reliability of a measure also indicates the stability and consistency with which the instrument measures the concept and helps assess the 'goodness' of a measure. Reliability used in the study is free from random error and measured with Cronbach's alpha (α). Alpha measures internal consistency, the degree to which items of scale measure the same underlying attribute or construct. It ranges from 0 and 1, high the value indicates high reliability levels, and past studies suggests a minimum of 0.6 or above for new scale and a minimum of 0.7 or above for well-established scales Malhotra,[iv]. However, researchers argue that there is *no hard and fast rule* for assessing the magnitude of reliability coefficients. Other authors indicate that acceptable values may be as low as 0.4 for broadly defined constructs. though many researchers considered this value as too low.

Past research studies argue that the reliability of a measure indicates the extent to which the measure is without bias (error free) and offers consistent measurements across time and across the various items in the instrument. Besides the reliability of a measure indicates the stability and consistency with which the instrument measures

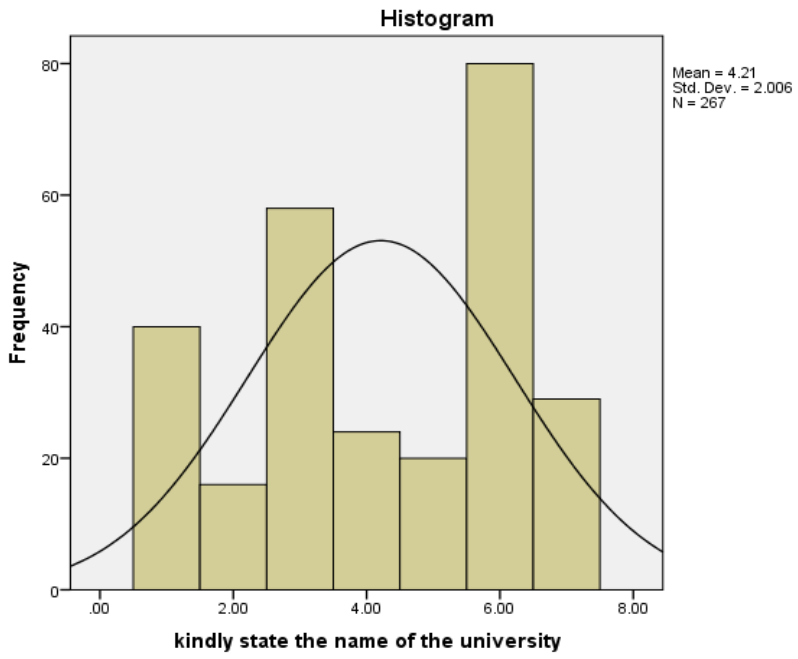
the concept and helps to assess the goodness of a measure. Cronbach's alpha ranges between zero (0) and one (1) the higher the value, the more reliable, most of the researchers recommended a minimum level of 0.7 as an acceptable standard for demonstrating internal consistency. In this study, the coefficient alpha analysis is performed on each subscale and on the entire scale. The coefficient alpha values are shown in table 4.6

TABLE - 4.1
SAMPLE DISTRIBUTION OF
NUMBER OF RESPONDENTS IN SELECT UNIVERSITIES

S. No	Name of the University	Frequency	Percent
1	SKU	40	15.0
2	JNTUA	16	6.0
3	SPMVV	58	21.7
4	RU	24	9.0
5	DU	20	7.5
6	SVU	80	30.0
7	YVU	29	10.9
Total		**267**	**100.0**

Source: Statistical results of field data

GRAPH - 4.1



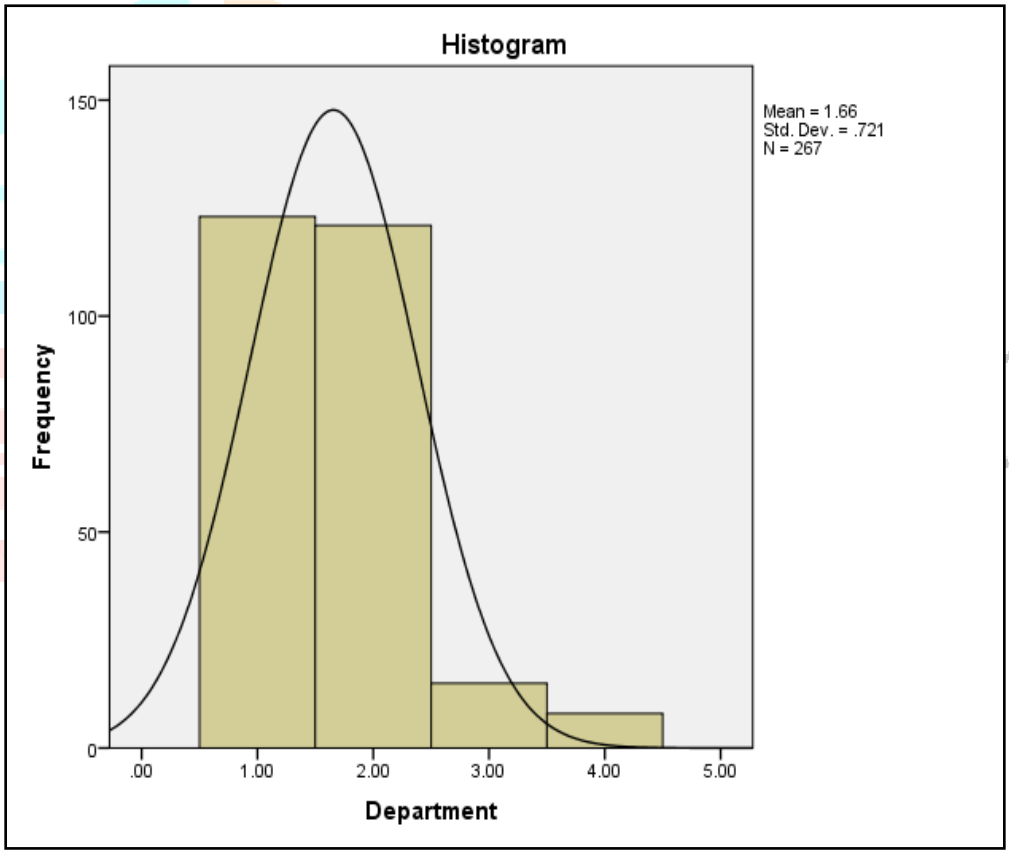
Source: Statistical results of field data

TABLE - 4.2
FACULTY WISE DISTRIBUTION OF
SAMPLE RESPONDENTS IN SELECT UNIVERSITIES

Department	Frequency	Percent
Science	123	46.1
Arts	121	45.3
Education	15	5.6
Physical Education	8	3.0
Total	267	100.0

Source: Statistical results of field data

GRAPH – 4.2



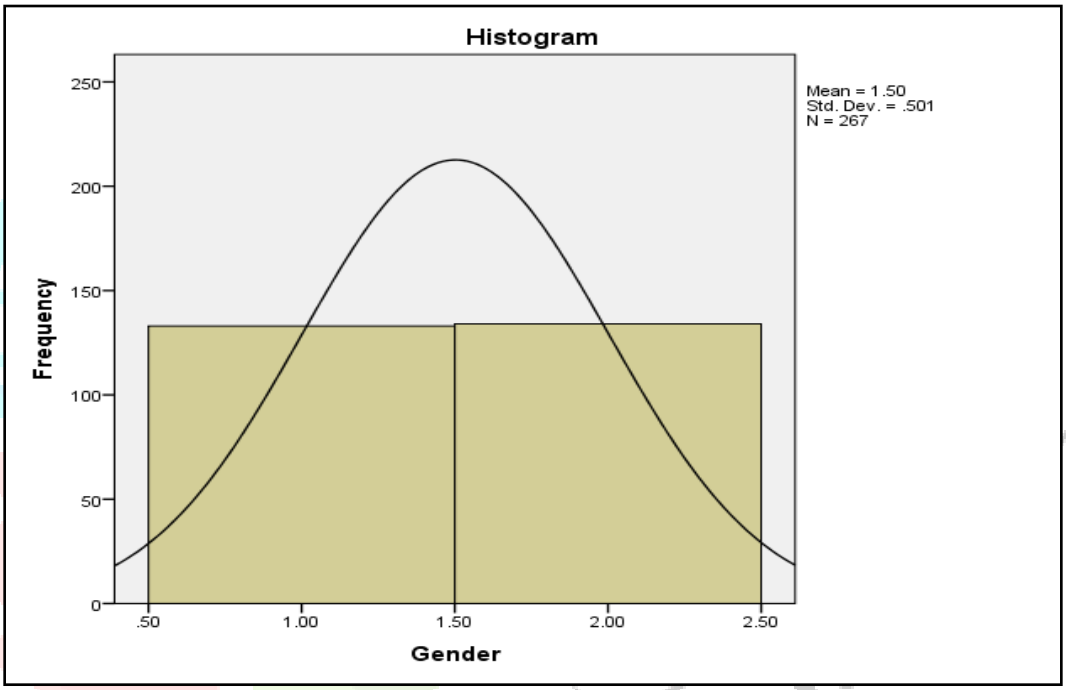
Source: Statistical results of field data

TABLE - 4.3
GENDER WISE DISTRIBUTION OF
SAMPLE RESPONDENTS IN SELECT UNIVERSITIES

Gender	Frequency	Percent
Male	133	49.8
Female	134	50.2
Total	267	100.0

Source: Statistical results of field data

GRAPH – 4.3



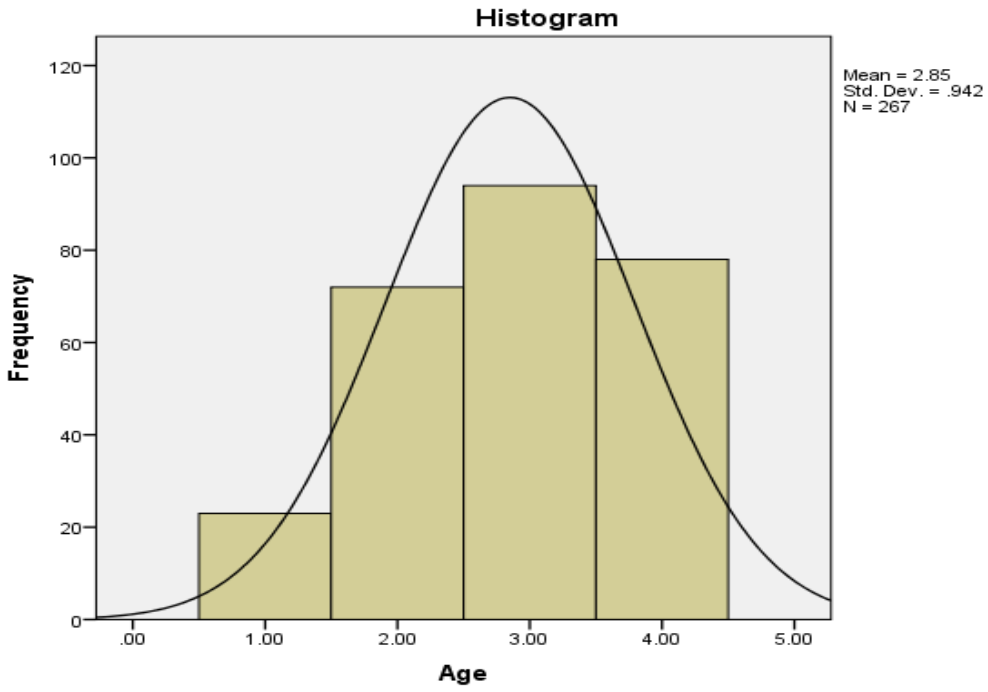
Source: Statistical results of field data

TABLE - 4.4
AGE WISE DISTRIBUTION OF
SAMPLE RESPONDENTS IN SELECT UNIVERSITIES

Age	Frequency	Percent
26-35	23	8.6
36-45	72	27.0
46-55	94	35.2
56-65	78	29.2
Total	267	100.0

Source: Statistical results of field data

GRAPH – 4.4



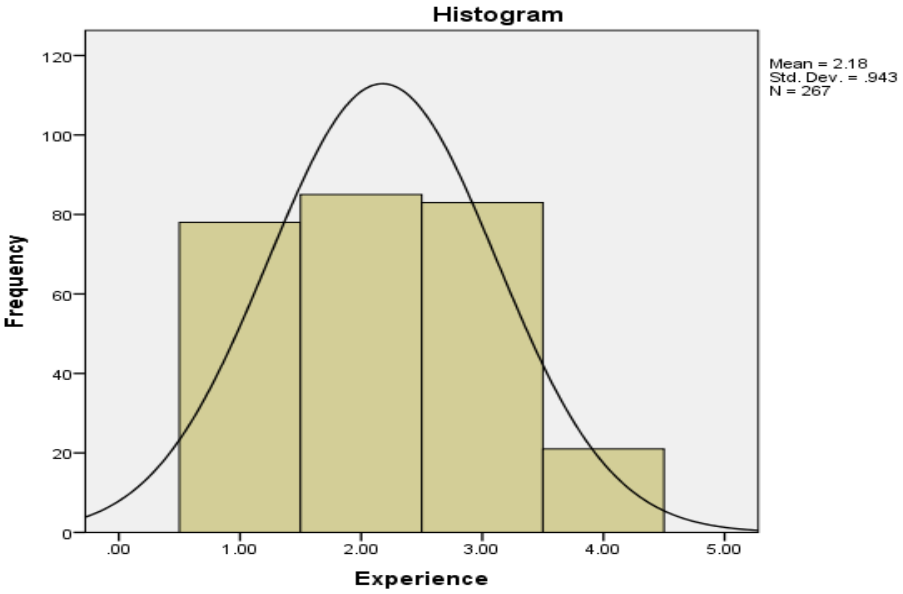
Source: Statistical results of field data

TABLE - 4.5
EXPERIENCEWISE DISTRIBUTION OF
SAMPLE RESPONDENTS IN SELECT UNIVERSITIES

Experience	Frequency	Percent
1-8	78	29.2
9-17	85	31.8
18-25	83	31.1
26-35	21	7.9
Total	267	100.0

Source: Statistical results of field data

GRAPH – 4.5



Source: Statistical results of field data

TABLE - 4.6
RELIABILITY MEASURE USING CRONBACH ALPHA

Variables	Cronbach Alpha
Intellectual Capital Management(entire scale)	.989
Human Capital	.947
Structural Capital	.983
Relational Capital	.965

Source: Statistical analysis of Sample Survey

5.Results: The bell shaped curve in histogram indicates that the demographic factors considered for the study are uniformly distributed in the case of gender,age and experience whereas in the case of selection of departments in the universities a higher bell is observed which indicates that the sample is more in arts and science stream.

6.Conclusion

In the eon of fast pace change of policies where the world has become a global village, wherein better opportunities should be the criteria and to raise the standard of living Education is a tool which provides a universal remedy to face global competition for better opportunities. We are living in an era where a shift from industrial society to knowledge society has been going on. This transition brings together some important implications to management that the primary source of organization wealth lies with committed employees and the challenge before the top management is how to convert the knowledge of the employees into wealth. As Chatterton and Goddard (2003)[v] recognize, "responding to the new demands requires new kinds of resources and new forms of management that enable universities as institutions to make a dynamic contribution to the development process". They must compete more for teachers, researchers, students and funds and get used to managerial procedures and producing reports which allow internal and external bodies to evaluate their performance. Intellectual Capital is a combination of human capital, structural capital and relational capital. Human Capital constitutes on individual development their enhancement of skills, knowledge and abilities which in turn helps the organization's performance.A knowledge environment,which helps in creating and sharing knowledge, and also provides recognition and rewards to those who significantly contribute to the strong human capital base. For effective performance in Institutions of higher learning apart from that the effective management of intellectual capital helps in increased performance.

The data from the select sample universities has revealed that Intellectual Capital Management fosters a climate that helps in effective performance from the individual as well as from the organizational perspective. Universities are often funded by national governments and higher education policy is normally a national affair. Currently universities are not only influenced by the nation state but also by changes in the nation state and its

position in the international order. Decisions and discussions on global and international level also influence the universities and their actions. Recent examples are the signing of the Bologna declaration or the discussions on GATS (General Agreement on Trade and Services). Higher education should realize that they operate and function in a knowledge-driven global environment in which both domestic and foreign students demand access to the best quality education at the best reputable institutions of higher education in the world (Steynberg 2005)[vi].India's favorable demographics could undoubtedly lift the economy from a low income status to that of a mid to high income one with stupendous increase in living standards and raising millions of people out of poverty in the process. This would however require a great effort in building knowledge -intensive human capital for powering the new- age economy with emphasis on the reforms in higher education system and following global policies in reporting and management of intellectual capital in a university.To follow the foot-steps of, Austrian universities wherein, it is mandatory to publish Intellectual Capital Report everywhere. Though not mandatory it is essential in India to effectively manage intellectual capital for effective performance in institutions of higher learning. This will help in catering to the global demands.

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