Chapter One

NATURE OF CHANGE

We must be the Change.
We wish to see in the World.

- M.K. Gandhi
Chapter One

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Introduction

The idea that ‘the only constant in the universe is change’ has been a truism of life since ancient times. Change is a complex process and analyses of different models of change indicate that change involves numerous phases over a long period of time.

Studies have shown that Universities are among the most conservative, of all institutions in their method of governance and conduct. Looked from within, they have changed enormously but looked from outside, they are among the least changed institutions. To function effectively Universities have to achieve equilibrium with in the internal variables and also with the external environment.

University is a product of social, cultural, organizational and economic history of that country. Each university is unique in that sense. The forces of external environment have gained considerable momentum in the last few years. Consequently university system is under pressure.

Universities have been faced with demands of expansion of enrolment and improved efficiency. On the other hand there are demands of rationalization and accountability. Forms of knowledge as well as the nature of research are changing. Changing fiscal conditions have brought pressure on higher education. The sector has to fight for funds from other forms of education (especially primary education) and from other social sectors like health etc. Economic aspects of globalization have offered opportunities for the Universities to expand areas of interest, and rethink about the future.

Internationalization of information and markets has also impacted the Universities. Presently certain forms of knowledge are valued much more than others and a serious danger is that the Universities under market pressure may respond to the demands of global economy and thus lose their independence in generating knowledge.
Methods of delivery are being revised and the role of academic is being redefined. In the emerging GATS scenario, quality issues are being addressed seriously. There are no doubt that the successful Universities of the 21st century will be those that can adopt to the new demands while maintaining best aspects of their existing systems and procedures.

There is a need to link the issue of change with the university education before defining the change


The original meaning of old French word changer was ‘bend’ or ‘turn’ like a tree or vine searching for the Sun. The idea that ‘the only constant is change’ has been a truism of life since the time of Heracleitus, circa 500 BC.

Change is an inevitable part of the Universe. It is all around us, in the cosmos, in the planets, in our own mother earth, in the atmosphere, in social environment and in the human biological processes. “A person’s very first few breaths are dependents on his capacity to adopt from one environment to another. Again the pace of change is so rapid that no one can jump twice in to the river at the same time from the same point because much water has flown during the intervening period”.

“Each hour is different, offering people new experiences”. The world we live in, is witnessing rapidly accelerating change occurring in many fields “There are lot of explosions, like knowledge explosion, technological explosions, economic explosion, and communication explosion etc. These explosions affect our organizational environment also necessitating it to act and react”. “The rapid growth of technology, expansion of economics markets, Social and political changes become constant pressures for organization to change, adopt and grow”.

1 Malhotra Meenakshi, Nee Meenakshi Dhawan, Organizational Development & Change, Deep & Deep Publications, New Delhi 1993 p 1


3 Beckhard Richard Organization Development, Strategies and Models (Reading Mass- Addison Wesley) 1969

1.1.2. Models of Change:

1) Leading Change, why transformation efforts fail.

One lesson is that, change involves numerous phases put together usually take a long time. Skipping steps creates only an illusion of speed and never produces a satisfying result. A second lesson is that critical mistakes in any of the phases can have a devastating impact, slowing momentum negating previous gains. Kotter's lessons are instructive, for even the most capable manager often make at least one big error.

According to the author, a few of the corporate changes have been successful, a few have been utter failures, and others fall somewhere in between, with a distinct tilt towards the lower end of the scale.

The possible errors that could happen are,

a) Not establishing a great enough sense of urgency

b) Not creating a powerful enough guiding coalition

ii) Change is a complex process. Some of the models suggested by the social scientists are given below,

• One model suggests that change takes place when the forces favoring a particular innovation become stronger than those opposing it.

• Another model suggests that change happens, when an individual, a group of people, or an organization recognizes the problem and succeeds in finding a solution.

• Yet another model suggests that change occurs through the borrowing of ideas and practices from people of other societies or cultures.

• Another model indicates that, within an organization, group or society, some people or institution moves out ahead of the rest who, eventually, imitate the innovators and general change occurs.

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iii). Like human beings, organizations also have a 'life cycle' but with a difference. After maturity a human being is bound to decay, whereas an organization can be managed in such a way that the process of decay can be arrested and directed upwards again. We can identify the following broad steps in the 'life cycle' of any dynamic organization.

During the introductory phase, the organization plans, organizes and executes its various operations and establishes equilibrium with the environment. With the passage of time and accumulation of experience, gradually it expands multi-dimensionally, in terms of size, operations and complexities. Its resources are utilized more productively leading it to the optimal or maturity stage. Gradually it attains a plateau. This is a critical stage in the life of an organization. Unless care is taken to arrest the negative influence, it is bound to decay and gradually move in to oblivion.

This figure 1.01 illustrate the phases that successful technologies, products, policies, principles, process etc go through.

**Fig.1.01. Life cycle of the organization**

![Graph showing the life cycle of an organization](image)


To standardize operating procedures and optimize expertise, it is necessary that an organization adopt, for a time, a particular way of doing things. Thus at times its methods of operations may be relatively static in relationship to its environment. Instead of constantly making incremental changes, it is suggested to maintain perfect adaptation, the organization may instead from time to time make a number of structural or technological changes at once.

This idea is illustrated in Fig 1.02, which depicts the adaptation of a long-term viable organization to
its environment. The steep portion of the curve represents periods soon after the organization made major successful changes. The flatter position represents the periods of relatively stable operations that were becoming obsolete. The changes of an organization that improve its adaptations can be several types, like technological changes, product changes, structural changes etc. None of these is necessarily most important, what counts most is their total mix.

**Figure 1.02. Adaptation of an Organization through Time**

![Graph showing adaptation over time](image)


### 1.1.3. Definitions:

a. **Management:** It is proposed to adopt the generally used definition of planning, organizing, leadership, control and development.

b. **University:** University is an institution of higher learning, participating in the evolution of knowledge, which provides facilities for teaching and research, and authorized to hold examinations and grant academic degrees. In India “university” means a university established or incorporated by or under a Central Act, a provisional Act or a State Act.

c. **Change:**

i) Change, according to Kanter, involves in the crystallization of new action possibilities (new policies, new behaviors, new patterns, new methodologies, the new products or new market ideas) based on the re-conceptualized pattern in the organization. The architecture of change involves the design and construction of new patterns, or the re-conceptualization of old ones to make new, and hopefully more productive actions possible.

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7. *Definition given by CEPES, European Center for Higher Education, UNESCO.*
ii). Change is not perceived as negative because of its unwanted effects as much as because of our inability to predict and control it. Thus a critical factor affecting our perception of change as positive or negative is the degree of control we exercise over our environment.

1.1.4. The environment of higher education.

Universities have an internal environment but exist in an external environment. The internal environment is in terms of the task, structure, technology, social (People) and economic variables, while the external environment is in terms of the larger social, political, economic and cultural factors. To function effectively, Universities have to achieve equilibrium within the internal variables in active interaction with each other and also with the external environment.

The environment, in which higher education operates, now and in the future, is reflected by four assumptions.

a. Conditions and conventions within the environment are changing.

b. They are changing faster than they have changed in the past.

c. Changes will continue to occur more rapidly in the coming years.

d. Implications of these changes for Universities must be anticipated by adopting proactive approach.

1.1.5. Higher Education as a catalyst for change - Importance of higher education in the development of a country.

i) Higher education determines the country’s prosperity and welfare in a number of ways. Higher education is a key factor of production in terms of economic theory. It also provides a route to social mobility and economic advancement to the citizens of a country. Papi has described the importance of higher education as below:

a). Makes people more receptive to inventions and innovations.

b). Promotes the division of labor or and use of machinery.

c). Permits increasingly advantageous combinations of factors of production as compared with those in which human factors are of lesser quality.

d). Makes it possible for any technical discovery to be brought into operation with little or no delay.

e). Promotes the domestic economy on an international scale, far reaching mobility of labor and entrepreneurial ability.

f). Ensures that those individuals who are responsible for making technical, economic and political decisions possess the width of knowledge and the breadth of view, which, associated with a high moral sense, enable them to avoid potentially dangerous mistakes.

ii) The Punnayya committee\(^1\) has identified the following roles of higher education:

a). As an essential input for meeting the manpower requirement for important critical areas of national development and for the integral part of national efforts of human resources development;

b). As a critical input to ensure social justice and equity for providing upward mobility, access to higher levels of economic and social activities for the weaker sections; and

c). As an important input for improving the quality of life by making higher levels of knowledge available to a wider base of population and for preserving our cultural heritage.

iii). The amendment introduced by the Indian delegation in the world conference on ‘Higher Education Vision and Action’ convened by UNESCO, in Paris, during the 5th to 9th October 1998 was as under;

“Ultimately, higher education should aim at the creation of a new society-non-violent and non-exploitative - consisting of highly cultivated, motivated and integrated individuals, inspired by love for humanity and guided by wisdom”.\(^12\)

\(^{11}\) University Grants Commission (UGC), Funding of Institutions of Higher Education (Justice K Punnayya Committee Report), UGC, New Delhi, 1993, p.18.

iv). Barnett saw the binding feature of higher education as the development of reflective students, able to form and substantiate independent thought and action in a coherent and articulate fashion. This version of higher education is concerned with higher order cognitive development. Further he listed four concepts of higher education:

   a). As a provider of quality personnel.

   b). As a training for research career.

   c). As efficient management of teaching profession.

   d). As a matter of extending life chances.

1.1.6. Higher Education and the process of change-Experience of other countries

The growth of higher education and change process in some countries / regions has been summarized below;

In the USA the change model has been growth by accretion - by simply adding on new functions. Large-scale reforms have been quite rare but there has been a great deal of change at the periphery of the institutions. Free market incentives and consumer awareness regarding institutional performance have acted as catalysts to the process of change. Accreditation and evolution, though voluntary, is necessary to establish status. State regulations are relatively light and change process is largely autonomous within a broad framework of accountability.

Malaysia has adopted the approach-controlled expansion of privatization through legislation. Corporatisation of public Universities in Malaysia and internationalization of higher education have been major elements of change.

Australia has re-structured its higher education, shifting from a strong state supported system, to one in which Universities manage themselves as profit making corporate houses. Universities are seen as a means to enhance the nation’s economic capability.

Hong Kong and China have been practicing “marketisation practices” in higher education. This cannot be analyzed in terms of a one-dimensional movement from “the state” (understood as non-market and bureaucratic) to “the market” (understood as non state and corporate). In the Hong Kong case, the move to market forms of production and competition in higher education does not constitute a withdrawal of government provision and subsidy, but instead, such a move occurs within the public sector accompanied by more regulation of performance. Even though the move to ‘user pays’ and the rise on non-state provision in China, suggests a withdrawal of the state in provision and subsidy, such practices are compatible with the development of a more effective state role in the socialistic market economy context.17

Factors responsible for ‘Change’ in Indian Higher education scene.

Disparities in the social and economic status of the people have acted as a barrier to uniform and widespread access to higher education. Yet, the pressure from the affected sections of the society or constituents of higher education such as students have been insufficient to bring about structural changes. There have been efforts from the top i.e. Central and State governments, to bring about changes through policy announcements and legislations.

While several new ideas have been brought around through various commission reports and policy announcements, the real problem has been the inability to implement, by effective coordination among the various agencies. The social, political and educational systems and structures have not been effective in translating vision into reality. Thus, change has become a slow process. The progress made with regard to rational fee policy and examination reforms in the last five decades, indicate the slow pace of the change process.

At the University level, working in an affiliated system has meant, providing a uniform pattern of education to a heterogeneous group. Centralization has reduced the level of innovations. Uniformity and standardization give less opportunity to innovate. Universities must have a large measure of autonomy if they are to provide creative teaching and research.

The bulk of financial support for higher education comes through the Government and the Government is accountable for the end use of public funds. This is also responsible for slow nature of the change process.

Despite various shortcomings and limitations India's success in the field of higher education has been impressive. The name made by the IITs, IIMs and several University departments reflects positively on the competence of our graduates and on the capabilities of the higher education system in our country.

There are several external factors, which may act as catalytic factors for change.

The great demographic divide is a big challenge and opportunity for our higher education system. By 2010, 37% of the population of the OECD countries and 38% of Japan will comprise of people above the age of 65 years\textsuperscript{18}. Only the African and Asian Countries will have a younger population.

With the technological changes sweeping the world, there would be a major change in the quality and composition of the labor force, with a significant shift towards "knowledge workers" as opposed to "blue collar workers".

Globalization would result in a freer movement of capital, technology and professional manpower. Multinational companies are looking towards India, for meeting their manpower needs. Universities and Research Institutes in developed countries are seeking students from India.

With the liberalization of fiscal and economic policies, the role of private sector in the economy will be more pronounced.

The advances in information technology will bridge the knowledge gaps pro actively and also bring about changes in teaching-learning process.

These changes in external environment have posed a challenge of relevance and quality for the India Higher Education system. This will impel the higher education system to undergo vast changes in respect of objectives, contents and methods.

1.1.7. Need for the study.

Change in Universities: Kerr\textsuperscript{19} identified eighty-five institutions that had been in existence since 1520 and were still largely unchanged; seventy of them were Universities.

\textsuperscript{18} World Bank Report - 2000.
Kerr recognized that Universities are among the most conservative of all institutions in their methods of governance and conduct and are likely to remain so. Looked at from within, Universities have changed enormously in the emphasis on their several functions and in their guiding spirits, but looked at from outside and comparatively, they are among the least changed institutions.

According to some sociologists, effects of the globalisation on the University will be more drastic than the industrialization and urbanization combined and it will be biggest challenge the University has faced for more than a century and half. Institutions in the developing countries have to reform on the many fronts simultaneously as they have no time to face up to the challenge, and this has placed them in a huge disadvantage. International trade agreements like GATS of WTO hold to principles of non-discriminatory treatment for service providers, including transnational education providers. Competition among the institutions is likely to grow both within the country and internationally. Developments in the field of information technology have provided a new dimension to educational delivery and reach.

The government of Karnataka has amended the KSU Act 1976. KSU Act 2000, which can be called an effort in reforming higher education in the state, is now governing the Universities. The government is also taking certain steps like introducing Semester system, Academic audits, and Teacher evaluation mechanism etc for improvement of higher education sector. Universities are also introducing some changes under the direction of the UGC.

Concerns for quality have gained momentum. All the six Universities in Karnataka (governed under the KSU Act 2000) have got themselves assessed and got accreditation from NAAC.

There is every reason to call this a transitional phase in the history of higher education, which may decide the course, higher education is likely to take in future. At this critical juncture there is a need to study the process of change management in the Universities in Karnataka, adapting a integrated approach. Change is the integral part of any growth mechanism. Indian Universities are required to accept the change and restructure themselves. There is a great need to understand the change process in the universities and their change readiness.

1.2. Literature Survey

No study relevant to ‘Managing Changes in Indian State Universities’ has been conducted so far in the modern perspective. However, a few studies are available in respect of different dimensions of change both at National and International levels which have been utilized for the present research.

The literature available in the international context is covered first and that Indian context is covered latter.

1.2.1. International Studies.

Lockwood and Davies²⁰ (1985) have listed seven challenges for Universities with regard to changes that are likely to occur in future. They are listed here below;

The first challenge is the most obvious, the fact of contraction.

The second challenge is the major constraint of the comparative loss of autonomy of the Universities.

The third is the growth of uncertainty.

The fourth challenge is to become more efficient.

The fifth challenge is that of the market.

In this environment, the sixth challenge for the universities is the creation and maintenance of flexibility.

The seventh major challenge is for the universities to manage all changes required of them without excessive damage to the morale of their Staff.

David Watson²¹ (2000) has modified the first two challenges of Lockwood and Davis. He has substituted the first challenge with the reciprocal challenge of continued expansion, and updated the second challenge to deal with post-binary realities. He has added the 8th, 9th and 10th challenges as under;

The 8th challenge is to understand and respond to local and not just national and international demands (regionalisation)

The 9th challenge is to recognize and adopt to the implications of higher education as a global enterprise (globalization).

The 10th challenge is to understand those aspects of the National and International reputation of the nation’s higher education sector where institutions must act firmly, collectively and transparently, especially with regard to quality and standards.

Williams and Fry\textsuperscript{22} (1994) identified six strategic concerns for the British higher education for the period 1994-2004. They are listed here under:

- Diversity and the differentiation.

- Graduate employment. Shortage of graduates in some areas will coexist with weak demand in other areas.

- Qualifications and the organization of teaching and learning.

- Opportunities offered by new technology. Unevenness is to be anticipated in the extent and quality of information technology usage in teaching (and learning).

- Increasing income from private sector. The focus of attention will be on effective, efficient and equitable mechanisms of cost recovery. Raising fees is inevitable.

- Staff recruitment. There will be more mobility between academia and the professions, including more joint appointments. A small core of high quality full-time staff supported by networks of part-time staff may be the structure future university evolves into.

Tapper and Salter \textsuperscript{23} (1992) regretted that all the upheavals of the 1980s did not result in a serious attempt to formulate a new model of the university. They urged that Universities ‘create their own vision of the future’.

Gordon \textsuperscript{24} (1995) identifies the changes in British higher education post-1985 to include: the introduction of periodic research assessments; external quality audits and assessment of teaching

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\textsuperscript{22} Williams G and Fry H. \textit{‘Longer-term prospects for British higher education. Committee of Vice-Chancellor and Principals’}. University of London. London. 1994.
\textsuperscript{24} Gordon, and Newson, Janice(Ed); \textit{‘Universities and globalization: critical perspectives’}. Sage Publications, California, 1998.
\end{flushright}
provision; the abolition of binary divide; the creation of a unified of funding councils; massive growth in student enrolment; shifts in the sources of institutional funding; mergers and associations between previously independent institutions; and a wide commitment to faculty and staff development.

He has also focused on the possible size, shape, structure and nature of the British higher education system by 2005. Institutional strengths and capabilities have to match market demands and opportunities. Selective collaboration through strategic alliances among the institutions could happen. On students funding, the issues are the adequacy of levels of support and adoption of efficient and equitable mechanisms of cost recovery.

Use of new technologies in teaching and learning will spread more widely, rapidly and deeply in some areas than in others. High quality interactive materials may facilitate student-centered learning. External providers of vocational training should prove supportive to the university system in the medium term. However in the long term they will provide strategic investment choices for the University system, whereby alliances and joint ventures reduce costs and allow scarce resources to be freed to support priorities. Redefinition of the linkages between teaching and research can result in four forms of scholarship, those of; discovery; integration; application; and teaching. Gordon also proposes that standards and purposes of higher education should be readdressed.

Sanyal 25 (1995) conducted an International Institute for Educational Planning (IIEP) sponsored research program, the purpose of which was to establish that types of changes that have occurred or are occurring in higher education management and to increase understanding of the process of planning, introducing and implementing management changes. The project tried to identify the factors associated with success or failure, to explore ways of overcoming obstacles, to suggest methods to improve management and to increase the responsiveness of higher education institutions to changing financial, economic and social pressures. The information base covers changes that have occurred in university management in a wide range of countries between 1989-94.

The analysis of the materials and workshop discussions suggested three broad conclusions:

- The external environment of higher education institutions had changed rapidly and the institutions have been slow to react. In general, efficient management is critical to the success and the reputation of Universities.

• In this era of rapid economic, social and technological change, good management must itself involve change. Managerial and educational reforms are a continuing and integrated process. Changes constitute a cumulative adjustment process. The change approach should be proactive, not reactive.

• Management in different specific areas of the university (e.g. Finance, research, space, academic departments) requires coordination, control and accountability in mechanisms and specific professional expertise. Only then it can contribute to overall good management and keep pace with other changes taking place elsewhere.

Currie, Jan and Newson, Janice26 (Eds) (1998) have drawn attention to the changes due to forces of globalization on the university. Universities in developed countries have restructured and reoriented, in the light of the impact of market forces. The changes identified are:

• Withdrawal of State from funding and increasing restructuring of Universities to resemble corporate houses.

• Managerialism, accountability, privatization etc are the key words used in such a reorganization of the Universities.

• Increasing Education costs (in line with the ideas of uses-pays).

• Flexi time (may result in decrease in recruitment/appointment of temporary Staff).

• Increasing structures of accountability and performance on faculty.

• Declining Norms of governance and shared decision making for management.

• Faculties of techno-science benefit at the expense of decreasing funds for humanities and social sciences.

Universities instead of being supported as centers for learning are being restructured as entrepreneurial Universities. The book indicates how globalization is not really decentralization but a continuance of surveillance and vertical structures.

Lucas27(1998), discusses the changing role of the Universities in the 21st century. Electronic

communication revolution has facilitated individual access to information and skills. The Universities will have to teach the students how to cope up with the vast amount of information that keeps pouring in. An important function will be to teach students how to analyze information completely and thereby convert it into knowledge. Universities will have to add to skills or teach new skills, as students already possess skills and also the power to innovate. Additionally with increased student mobility and the advent of virtual classrooms the University will have to globalize both in terms of curricula and quality. There would be need to internationalize curricula so that the learner can think globally, even if he has to act at a national or local level. Quality will have to be ensured so that the education imparted is internationally competitive.

Fagerlind, et al (Eds) (1999) discuss the basic problem of the continued conflict in higher education between its traditional and emerging changing roles.

Two noticeable trends identified are: the state as a funding source is gradually drying up from this sector and the private agencies, especially MNCs are stepping in to fill the vacant slot. The other pertains to the power of the academics. In place of the academics, the administration has become more powerful because of the accountability factor.

Kerr's 'The uses of the university (5th edition-2000)' is probably one of the most important books on the modern university. Kerr traces the changes that have occurred since the time of original medieval Universities. He sets forth the three models (British, German, American) of a university that were combined in the modern 'Multiversity' and each with more or less equal status. Since 1963, one of these models has lost ground - the British or 'liberal knowledge' for under graduates model - both in USA and UK. For the American research university the author identifies four ages:

- Origins (1810-1870). The German model became increasingly attractive joined by the creation of land grant model by federal actions in 1862.

- Slow growth (1870-1940).

- Rapid expansion and extension of activity (1940-1990). The first great explosion came during World War II. By 1990 about 125 institutions were identified as "research Universities" for which research was the dominant single activity.


• Constrained resources (1990–2015), and perhaps beyond. The prospects of money from state resources in particular appear to be less assured.

Research Universities as well as all of American higher education, face some ‘hard choices’, which the author feels they are equipped to make. The author advises American universities to concentrate on following areas for change management in the coming years.

• The globalization of economic markets and their impact on the American economy and higher education.
• The fluctuation in the rates of productivity increases.
• The fluctuations in rates of economic returns to college education.
• The new market of middle-aged students seeking jobs advancement.
• The new electronic technology.
• The rise and dominance of the biological sciences, and the intensity and direction of public reaction to their discoveries.
• The ongoing battles within the unhappy humanities and between supporters of the traditional and the postmodern models of the University and other intrinsic conflicts.
• The further integration of higher education into labour markets and into industry, and the resultant disintegration of the once self-contained campus.
• The rise of for-profit competitors to non-profit higher education.
• The movement of more governing power into the hands of non-academic authorities.
• Wars and depressions, student unrest and other wild cards.

BleiKlie et al (2000) have studied the change in Norwegian higher education by doing analyses at several levels. Higher Education Act of 1995 integrated all higher learning institutions. The integration effort has been supplemented with the idea of ‘Network Norway’, an attempt to establish systematic cooperation between the higher education institutions, aimed at facilitating student mobility, stimulating specialization and concentration of research, and an efficient use of resources. Other developments

relate to the implementation of new public management ideas (standardization and formalization of planning and budgeting), the establishment of research academics, attention to the raising the quality of the universities, and enormous expansion of the system in terms of the size of student population. The changing function of academic credentials relates to the emergence of sciences and humanities as research oriented disciplines. On the changing relationship between administrators and academics, the author concludes that the presumed antagonism between the two has been blurred and redefined by the emergence of 'new public management'. The study makes clear that change is not the sole effect of political reform. Demographic and socio-structural developments were also important in the Norwegian case, the reforms being both forces behind as well as responses to change.

Barnett31 (2000) has examined the number of lines of contemporary reflections on knowledge and university. The university is no longer the sole or even the main source of production of knowledge in society. New forms of knowledge valued in the wider world are challenging the forms of knowledge the university has priced. The criteria for validating knowledge claims are widening. The means of validating knowledge are changing. Worldwide Universities have become more and more accountable to system of scrutinizing by the State. Knowledge comes to be replaced by the knowledge. Forms of action (skills) have to find a place with in the curriculum. No longer are skills and higher education to be tied to forms of knowledge per se. Knowledge has become performative in character and loses its power to enlighten. There is a feeling that the knowledge function of the university is being undermined. However the author does not accept the 'end of the university’ thesis. He feels that new, even more challenging, roles are opening up for it, roles that still enable us to see continuities with its earlier self-understandings built around personal growth, societal enlightenment and the promotion of critical forms of understanding.

He concludes that in University knowledge, understood as a pure objective reading of the world, does have to be abandoned. But the university is not, thereby, delegitimised. The modern world is super complex in character. In such an age of super complexity, the university has new knowledge functions: to add to super complexity by offering completely new frames of understanding (so compounding super complexity): to help us comprehend and make sense of the resulting knowledge mayhem: and to enable us to live purposefully amid super complexity. A new epistemology for the university awaits, one that is open, bold, engaging, accessible, and conscious of its own insecurity. It is the end epistemology for living amid uncertainty. The university can be reborn.

Jarvis (2001) examines the changes that are occurring in and around higher education, due to globalization of the world economy and the emergence of the knowledge and learning society. The author stresses that traditional Universities have to change to retain their own identity. The question of whether universities -as learning organizations - should copy the structure of corporations has also been debated. The author pleads for a corporate university with in the university i.e. to create a learning organization investing in the development of its staff.

The author analyses the development of corporate universities oriented to corporate needs. These Universities focus on the world of work and operational competence. The author brings out strong points and shortcomings of both types of Universities, and at the same time shows directions for the Universities to be important players in the knowledge and learning societies of the future. The book has a message for the Universities: they should continue to contribute to be the discourse on what the University actually is. It is what they should aspire to by nature and it gives them opportunity to counter alternative discourses e.g. the discourse of the instrumental rationality of the corporate university.

1.2.2. Indian Studies


The objectives of the study were;

(i). To identify the various innovations that were introduced by the Madurai Kamraj University (MKU) in affiliated colleges during the last 15 years and categorize them according to their nature and impact.

(ii). To trace the travel paths of some selected innovations from the point of origin to the point of implementation, and

(iii). To locate a certain crucial points in the process of implementation of innovations by MKU in affiliated colleges, with particular reference to planning, organizing, staffing, leading and controlling.

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The tools developed by the investigator for the study were;

(1). Questionnaires for teachers, students and office managers/ head clerks, and.

(2). Interview schedules for Vice-Chancellor and the convener of Syndicate sub-committee and officers of the university, secretaries of college committees and principals of colleges. The data were processed in terms of percentages and frequency counts and analyzed qualitatively.

The major findings of the study were;

- An innovation could be institutionalized only if the user community found the need for innovation.

- A felt need was not a must in all cases of introducing innovations.

- The university authorities not looking into the history of innovation concerned was one reason for its discontinuance.

- The Universities authorities not making any scientific calculation of the supportive and resistive force came in the way of effective implementation of innovations.

- Lack of participation on the part of the principals and other functionaries in the decision-making process came in the way of effective implementation of innovations.

- A lack of familiarity with management by objectives on the part of the implementation and lack of seriousness with which they took objectives, came in the way of effective implementation of innovations.

- The effectiveness of strategies and tactics in implementation were different for different innovations.

- Adequacy of the management information system varied from innovation to innovation.

- Effective planning. Taking into account all management activities was essential for successful implementation of innovations.

Iqbal Narain 34(1985) and Chauhan 35 (1990) have made some observations regarding management of change in Indian higher education. India, more than any other third world country has attempted to plan its post secondary development and there are at least a dozen major reform proposals,


which have failed. At the same time that the micro planning of higher education has failed, important limited but quite specific reforms have been successfully implemented. The usual means for implementing innovations in higher education has been by the central government through the UGC, to provide partial or sometimes specific funding for a limited period of time. This method has two major drawbacks. Firstly, innovation ends when the period of funding ends, even though commitments have been made to continue them. Secondly, innovations poorly funded at State and local levels fall to despair after a period of time.

Altbach36 (1993) in his article ‘The Dilemma of Change in Indian Higher Education’ has examined various facets of Indian higher education scene. He notes that India has been notably unsuccessful in its efforts to control his burgeoning higher education system, in comparative terms. A powerful combination of forces makes systematic reforms in higher education virtually impossible. Political factors have a significant bearing on academic decisions. The structures of internal governance are unusually complex. The tradition, norms and legal protections of autonomy are, in general, lacking in the Indian context. The basic structure of the system remains the same as put into place by the British. Expansion has taken place at all levels of the academic system. The mainstream academic system has simply been overwhelmed with the tasks of coping with unending growth, leaving little time and few resources for more basic reform. The sociological, psychological status of the academicians have generally meant that they have opposed to reform efforts. Indian higher education is chronically short of money. It has been impossible to limit growth; at the same time, resources are not available to adequately provide for increased numbers. The problems of administering the examination system have also been widely discussed. The inefficiency and disruptions of the system have brought considerable disrepute to the academic system as a whole. The politics of society are often played in the Universities, escalating campus conflicts and further politicizing higher education. Social unrest is the result and most often the changes are not implemented.

Altbach concludes that meaningful systematic reform in the Indian higher education under the circumstances is not possible. Though the great monolith of the Indian academic system shows no signs of major change, Altbach notes that at the margin there has been significant change (like the IITs). In his opinion, changes can occur around the edges up the monolith, while central core of the academic system remains a permanent fixture.

Mitra (1984) with the help of the case study of Birla Institute of Technology and Sciences (BITS) Pilani, concludes that innovations unfold a whole range of necessary changes. BITS, a deemed university, was facing a situation of stagnation and falling revenue in 1970, when a new leadership team began work. A series of reforms were introduced in academic structure, examinations, admissions and staff management followed by changes in graduate programs, research and consultancy. Greater contribution from fees was obtained, though the increases were made only for new admissions. “Earn while you learn” scheme allowed 100 students work as assistants to faculty. Students could work for two degrees at the same time and usually achieved them in 4+1 years. Weaker students were allowed to transfer into less demanding courses than to drop out.

Computerization of the administration began in 1969. The institute follows the system of stronger centralized management. Examinations are internal and continuous. Answer papers are returned to students. The feedback helps teachers to improve the quality of teaching. Classrooms and laboratories are continuously scheduled from 8:00 am to 6:00 pm and the computer center and library are open until midnight. Staff and students do maintenance of computers or other equipment; development of software etc. The Institute does not engage outside consultants for this work. As a part of the projects, the ratio of academics: assistants: other staff is maintained at 1:1:1. Links with the industry enable projects to be conducted in industry settings without incurring overheads. Distance learning programs leading to BS and MS degrees are conducted with the help of employers who provide physical facilities and manpower to supervise the students. Small-scale units can use the students’ manpower as well as facilities at the Technological Innovation Center for projects.

A. Gnanam and A. Stella (1999) have analyzed the changes that are happening in the Indian society and their impact on the system of higher education. In the changing context they have identified following trends, which are likely to permeate the educational policies and practices of the next few decades.

**Trend 1**

1.1. Shift from elitist to mass education.

1.2. Continuing quantitative expansion.

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Trend 2

2.1. Decreasing funding from the governmental four sources.

2.2. Debate on higher education as a non-merit item.

2.3. Increasing demand for non-formal lifelong learning.

2.4. Socio-political pressure based on demographic, political, socio-economic changes.

2.5. Increasing private initiatives.

2.6. Increasingly market-driven system of higher education.

Trend 3

3.1. Focus on science and technology.

3.2. Shift from mono to multi and interdisciplinary courses.

3.3. Rethinking the role of Universities.

Trend 4: quality concerns

4.1. Performance evaluation of institutions.

4.2. Teachers accountability.

In the light of these changes, the authors propose two steps to enable India emerge as one of the competitive educational providers in the international scenario.

i. Universalisation of Higher Education.

Present level, which caters to the about 5 percent of the relevant age group amounting to about 5.5 million students, has to be increased at least four-fold to meet the anticipated demand for skilled and educated men, in the years to come.

ii. World-class Education.

All the institutions will have to offer courses keeping international market in mind; higher education itself will have to become international in character to attract international corporations.
Powar (2000) in an article has discussed the changing role and functions of the Universities. He points out that the modern university has survived as an institution for over 900 years as it has adopted itself to the changing needs and demands of its clientele. In his view the situation in the 21st century is totally different. Academic institutions are bursting at the seams. The clientele is heterogeneous. Communication technology has taken education to the living rooms of the students. The urge in the youth to climb the social ladder is so strong that utilitarian programs offered by the anti-Universities are preferred to the value oriented learning provided by the Universities. He has identified two paradigm shifts, the world over, in the field.

First, a model that favours lifelong learning for all is replacing the prevailing model of higher education that requires selective learning over a specified period of time. This is because the changing nature of jobs and much shorter obsolescence period for equipment necessitate continuous updating of knowledge and skills.

Second, there has been evident shift from the teacher-centred model that requires attendance at an academic institution to a learner-centred model that is based on student initiative and access to learning resources.

Additionally, with the extensive development of information technology distance education has emerged as an effective and viable medium for imparting knowledge. Leading magazine “India Today” under its challenge series conducted an opinion poll. (September 2002) titled “Higher Education: the need for radical surgery”. The poll attracted 1,22,048 responses. The poll was tracked by global market research major MFO-MBL India limited. Though not a scientific opinion poll, the informed response from a universe several times larger than the most comprehensive polls, provide an insight into the thoughts of Indian people on reforming the country’s higher education system.

‘India Today’ provides 5 options regarding the future course to be adopted and the respondents were asked to rank three option as their first, second and third choices. The choices of the respondents were as under;


### Table 1.01. Results of opinion poll on need for radical surgery to higher education

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Options for the readers</th>
<th>Readers choice %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Instead of arts courses, get colleges to offer courses linked to job opportunities.</td>
<td>84.19</td>
</tr>
<tr>
<td>2.</td>
<td>Make School curricula job-oriented in classes 10th and 12th to bring down numbers going to colleges.</td>
<td>76.41</td>
</tr>
<tr>
<td>3.</td>
<td>Cut down funding to bad colleges; sack those non-performing for greater accountability.</td>
<td>71.58</td>
</tr>
<tr>
<td>4.</td>
<td>Eliminate the centralized examination system and introduce internal evaluation in colleges.</td>
<td>52.56</td>
</tr>
<tr>
<td>5.</td>
<td>Dissuade all and sundry from going to colleges by rising fees sharply.</td>
<td>15.24</td>
</tr>
</tbody>
</table>

*Note: (1) As three statements had to be ranked, the percentages do not add up to hundred.*

(2) Weighted-ranking method has been adopted.

Seetharamu 41 (2003) made a study of the structures of higher education in Karnataka State and findings of the study indicate that there is a need for fundamental change with regard to institutions, enrolment patterns, public expenditure, course design, delivery modes, granted-in-aid policies, regional spread and management styles. Data on perceptions of principals of 182-degree colleges (25 percent of universe of study) in Karnataka was collected through a policy choices questionnaire. The major hypothesis of the research was that the principals of degree colleges, who represent a significant section of the system of higher education, are not ready for change.

All India documentary analyses showed that provision of higher education of relevance and utility, meaning and purpose, region-specificity and quality has been a continuing problem even today. The findings of empirical study are in regard to four areas of restructuring - academic, administrative, curricula and financial. Preferences for short-range strategies are also covered. The Principals welcomed proposition in regard to academic and curricular reforms wholeheartedly. Their reception to propositions for financial restructuring was not overwhelming, while their reception to administrative restructuring was lukewarm.

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Private aided and unaided colleges are relatively more reserved towards reforms. Recommendations of the study based on performance patterns of principals of colleges on the propositions placed before them are made. They include dispensing with the grant in aid system; limited number of colleges and students; targeting of subsidies; expansion of Open University system; setting up of an educational loan Bank by the State; changes in teaching methods; compulsory study of socially sensitive problems for three months before granting a degree, etc.

1.2.3. Summarization and Gaps identified in the literature survey.

The literature survey presented in the preceding section clearly indicates that there are wide gaps in a number of areas, for a researcher interested in serious investigation of management of change in Indian Universities.

Integration of Indian Economy with the global economy and challenges emerging from Liberalization, Privatization and Globalization (LPG), indicate the need for the Indian university system to restructure and reorient itself to meet the changing situation. Indian university system suffers from some historical drawbacks such as unplanned and unbalanced growth, financial crunch etc. They face dual challenge of overcoming these drawbacks and taking steps to meet the new challenges. The literature survey based on experience of other countries is very useful in identifying the shape of things likely to happen in the Indian situation. However here the challenges sometimes are very different. For example the challenge of ‘contraction’ cannot happen in India in the foreseeable future, nor can one visualize mergers between universities, as has been the case in some other countries. Major systems worldwide have shifted to semester system long back, while in India, it could still be called a change. Keeping such limitations in mind some of the challenges and changes relevant to Indian situation is summarized, from the International literature survey as under;

Changes constitute a cumulative adjustment process. University faces a challenge of making education reform a continuing and integrated process by adopting a proactive approach. They have to recognize and adapt to the implications of higher education as a global enterprise. In the ‘age of uncertainty’ and ‘age of super complexity’ creation and maintenance of flexibility and keeping pace with changes taking place elsewhere is essential. The Indian Universities will have to take up the opportunities offered by the new technology. Structure of accountability and performance on faculty will have to be increased. Linkage between teaching and research has to be redefined. Acting firmly, collectively and transparently, especially with regard to quality and standards is essential. Knowledge has become
performative in character, which means that forms of action (skill) have to find a place in the curriculum. Integration of higher education in to labor market and into the industry has to take place. The rise of for-profit competitors brings pressure on the university system to face the challenge of becoming more efficient and also increase income by way of cost recovery.

Indian studies have pointed out that India, more than any other third world country has attempted to plan its post secondary development and there are at least dozen major reform proposals, which have failed. At the same time important, limited but quite specific reforms have been successfully implemented. It appears Indian system gives more stress on continuity and hence drastic changes have not happened. The core of the academic system remains a permanent fixture, while at the margin there has been significant change. Universalisation of higher education and world-class education are the need of the hour but there are all-round constraints in achieving the goals. Quality is a major concern.

Research studies have pointed out that successful reform has been a continuing and integrated process, one change necessarily requiring changes elsewhere in the administrative or academic systems. Yet, the institutions seeking to initiate changes are concerned with impact on specific domains, such as finance, staff, facilities, education delivery etc.

The Universities are already facing some of the challenges listed, while some are likely to happen in near future. No study has been done in the Indian context, adopting an integrated approach on different facets of change. Finally, it may be stated that various researches, indeed have furnished much useful information about various components of change in the higher education field. These studies have also, paved the way for further research concerned with different components of change. Still, the fact remains that there is no study developed with an integrated approach on management of change. To the best of the knowledge of the researcher, no study has adopted the questionnaire cum interview method for different components of higher education system viz: VCs, administrators, faculty, principals, stakeholders and the students.

Hence the researcher felt that there is need to make an in-depth study of the factors effecting change and change readiness of the Indian universities under the title “Managing Changes in Indian State Universities- with specific reference to Karnataka State Universities”.

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1.3. Research Methodology

1.3.1. Objective of the Study.

The overall objective of the Research is to survey the contemporary problems associated with the Indian State Universities and find out the ways and means to bring about qualitative changes in these Universities with specific reference to Karnataka State Universities.

Focus of the study is, on the following:

1. To identify the variables affecting the external environment of the university and study the likely impact on managing changes.

2. To identify the variables affecting internal environment of the university and study the likely impact on managing changes.

3. To study the process of adaptation of Karnataka State Universities to the changing environment

4. To analyze the post assessment and accreditation (by NAAC) effects on the university.

5. To evaluate the impact of Karnataka State Universities Act 2000 on the Universities in their Jurisdiction.

Methodology

The study broadly follows the pattern of questionnaire cum interview method. Documentary analysis and descriptive survey have been used. Intensive discussions and interviews are integral to the methodology.

1.3.2. Period of the Study

An analysis of the financial data of the universities for a period of 5 years was considered adequate. The 5-year period chosen for the study is from 1998 to 2003.

1.3.3. Hypothesis

The major hypothesis of the study has been that, the administrators, teachers, principals and stakeholders, who represent significant section of the system of Higher Education do not perceive that the universities are adequately ready to face the changes happening in their internal and external environment.
1.3.4. Sources of information.

For the present study, data have been collected from the following sources:

a. Annual accounts, budgets and annual reports of the six Karnataka State Universities.

b. Annual reports of the U. G.C.

c. Reports of various committees constituted by UGC, Ministry of Human Resource Development, and Government of Karnataka etc.

d. Books, research papers and articles, journals, newspapers, magazines etc in the field.

For in-depth study of the subject, questionnaires were designed to pool opinions of the officers, teachers, and students of three out of six universities and also the stakeholders. In addition, where ever possible interview method was also used to follow the leads that appeared fruitful and significant.

1.3.5. Sampling Techniques

A sample design cannot be chosen, ignoring the basic characteristics of the population. It is necessary to resort to sampling the design that is theoretically desirable and practically feasible.

A true sample can only be drawn when the population in reference is homogeneous. Many alternatives are adopted to make two samples equal but in a research such as this, having two equal samples are not possible.

The number of units in a sample is a determinant of the adequacy of the findings and their applicability to the population. Before selection of the sample, the target population was described in terms of number of units, which served as the basis of sampling. Such a unit is known as sampling unit. The two characteristics of a sampling unit are;

i. The population must be completely described by the units, no part being left out.

ii. The units must be mutually exclusive and must be similar in at least one of their attributes.

A preliminary survey was done to conduct an enquiry about the population (census). The list of the units of the population indicating their status on the important variables was constructed. This sampling

42. Karnataka Women's University and Tumkur University have been established by bringing amendments to the Act on 07th August 2003 and 28th Sept 2004 bringing the total to eight universities.
frame”, was the basis of further research.

As the population is specialized, extreme care had to be taken in designing the frame. Questionnaire routinely distributed, would result in incomplete information or result in an unknown amount of duplication.

There are six universities in Karnataka coming under the purview of Karnataka Universities Act. It is proposed to study three universities.

a. Bangalore University (established in 1964) situated in the capital city of the State.

b. Gulburga University (established in 1980) situated in a backward area. (farthest place from the capital).

c. Kuvempu University (established in 1987). Relatively young university located in the central part of the state.

The data collected from the officers, faculty, stake holders, opinion makers and students are used for statistical analysis. However some additional techniques were used before forming the recommendations.

a. Selection of the Spectrum:

It is possible to divide the population into sub populations, each of which is internally homogeneous. The measurements varied little from one unit to another. Precise estimate of any spectrum mean can be obtained from a small sample in that spectrum. Their estimate can be combined into precise estimate for the whole population.

Spectrum I. (Directly responsible for managing changes of a University.)

Officers of the university:

Vice-chancellor

The Registrar

The Registrar - Evaluation

The Finance officer,

The Librarian.
The Deputy Registrars.

The Assistant Registrars.

10 officers of each university are selected as respondents, thus bringing the total number of officers covered to 30. These officers of the university are mainly responsible for the change process and hence the sample size should be considered adequate.

**Spectrum -II.** (Directly responsible for managing changes in academic matters).

**Deans**

Dean faculty of Arts.

Dean faculty of Science.

Dean faculty of Commerce,

Dean faculty of Law,

Dean faculty of Education.

One senior professor of each faculty.

The numbers in the sample is 10 per university. Total sample size is 30. The sample actually gets self-selected, as this sub-population's size is small. The census method can be adopted for minimizing sampling errors.

**Spectrum III.** (Link between university and students - a feedback mechanism and in charge of implementing changes).

Principals of university colleges who have served in the university bodies.

Sample size of 30 is selected, equally distributed among the three universities.

**Spectrum IV.** (Those who make policy/opinion makers/former vice chancellors/educational experts/employer/alumni/employees/repsntatives of funding agencies)

Sample size of 30 is considered adequate.

Higher education sector has a panoply of ‘stakeholders’, each of whom can, with varying degrees of legitimacy (all of which can, however, be traced back to tax-paying), claim to ‘own’ a piece of higher education and its outcomes. Analysis of stakeholders list underlined difficulties in terms of
both categorization and comprehensiveness. Keeping various limitations in mind, the stakeholders list was drawn as under.

Table 1.02. Distribution of Stakeholders:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Stakeholders</th>
<th>No preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Representatives of government departments (Education, trade and industry, science and technology).</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Representative of funding/assessment agencies (UGC/NAAC)</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Employer’s representatives.</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Educationalists (including former vice-Chancellors).</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Total.</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

Thus spectrum 1, 2, 3 and 4 comprise the population. The sample size of 30 is uniform and method followed is disproportionate stratified sampling. It can be seen from the composition of the population that, two strata (1 and 2) are small and the two strata (3 and 4) are comparatively larger. It is desirable that all strata maybe given equal weight even though their shares in the total population vary. Even though this is not very commonly used method, its usage is considered appropriate under the following circumstances;

a. The population contains some small but important sub-groups. Thus appropriate weightage is given to particular groups, which are small but more important.

b. The various strata are so chosen that the variables under consideration are relatively homogeneous within the strata. This tends to minimize the standard error and ensures greater precision.

c. The above method of sampling allows lesser sampling errors than simple random sampling of the same size. It not only provides greater precision than a simple random sampling, but also convenient for practical reasons.

d. The topic of research has the unique advantage of having prior knowledge of the composition of the population.

e. Being a method of controlled sampling it permits inter-strata comparison.
b. Selection of Student sample

The University provides service to the students, and hence it is desirable to have the sample from student population, which is quite different from the one (Spectrum 1 to 4) illustrated above. This sample from a heterogeneous population, is analyzed separately and not combined with the one culled out above. The population comprising strata 1, 2, 3 and 4 are the initiators, formulators and implementers of change in the University system for the benefit of the students, who represent the other end of the scale being the ultimate beneficiaries of change. Co-operation of the students is essential for the change process to succeed. Studying the sample from the student population separately, gives us insight into their viewpoint, on the process of change. It would also give us an idea as to the difference in perception levels between the population of change agents and students.

The number of units in a sample is a determinant of the adequacy of the findings and their applicability to the population. The size of the sample has to be decided in the light of the objective of the research, complexities of collecting data and costs involved. A sample size of 120 (same as in the combined strength of spectrum 1,2, 3, 4 above) with a sample of 40 per university is considered. Stratified random sampling is resorted here too.

The strata are based on the course of study as under;

Faculty of Arts 6
Faculty of Commerce 6
Faculty of Science 6
Faculty of Law 6
Faculty of Education 6
Research students from different faculties 10
Total-40 students from each university.

1.3.6. Questionnaire design

The first question to be resolved was whether the questionnaire had to be the open-ended or close-ended.

The subject of research needs to elicit the respondent’s unique views, philosophy or goals. Accuracy, detail and exhaustiveness are considered very important in dealing with this subject.
Open-ended questionnaires allow the respondents to answer adequately in all the details he likes and to clarify and qualify his answers. As the issue is complex, they allow more opportunity for creativity or self-expression by the respondent.

Close-ended questions impose an artificial structure on the data by putting words in the respondents mouth. Variation in answers among the different respondents may be eliminated artificially by forced choice questions. Of course there are obvious difficulties like non-standardization of data and difficulties and subjectiveness in coding, in using open-ended questionnaire. In spite of that, it would have been preferable to use open-ended questionnaire, at least theoretically.

Some of the questions are sensitive and the respondents may not like to express their views freely in writing. Moreover, open-ended questionnaires consume more of the respondents time and effort and may engender a high refusal rate. They require more paper and make the questionnaire look longer, possibly discouraging some respondents, who do not answer lengthy questionnaires.

The respondents have unique characteristics and no one else can be substituted particularly in spectrum I. As their time is very valuable, they may be willing to aid in projects they feel to be worthwhile, have a scientific value and take a very small part of their time.

To sum up while an open-ended questionnaire is a desirable, a close-ended questionnaire is preferred; if it is the only way the respondent will cooperate.

More over, whatever effort is taken to design open-ended questionnaire, it may be difficult to understand the exact meaning of the response, requiring the use of probes or more specific follow-up questions.

To eliminates some disadvantages of closed ended questionnaires -

i. Most of the questions have space for expression of the respondents, if he so desires under the head ‘any other comments.’

ii. While feedback from all the respondents comprising the sample is essential for tabulation and statistical purposes, wherever the respondents could give him some extra time, the researcher collected their views supplementary to the findings of the questionnaire through interview method.
Whether a do not know/can’t say response category should be included was the second issue to be resolved. Some researchers might feel that don’t know/can’t say is not a real answer and prefer a firm yes or no, for example. On the other hand, if the respondent has really no opinion, little maybe gained by forcing him to answer in to another category through omission of don’t know/can’t say category. The issue has not been resolved definitively one way or the other and is a decision that each researcher must make in constructing his questionnaire. This research prefers to include the don’t know/can’t say category.

The next question to be resolved was whether an identical questionnaire should be distributed to all the respondents. Considering the characteristics of the different spectrum, obviously this would not be possible. Following points were taken note of in designing questionnaire for the particular spectrum, with the overall objectives of the study in view.

Basic philosophy of the questionnaire has to be same but wordings have to be changed in some places to make it relevant for that spectrum

Some questions, which are irrelevant to that spectrum, have to be removed.

Some questions, which are relevant to that particular spectrum, are added in the form of annexure (spectrum 2 and 3).

Since a number of questions are not relevant to the students, they are deleted and some questions which provide insight into the their views have been added.

The two type of questionnaires (for group I and group II) along with the annexure have been provided in the Appendix.

1.3.7. The interviewing method

Interviewing is used here as a supplementary technique. While contacting the respondents for the purpose of getting responses to the questionnaire, the researcher tried to establish a rapport with them and sought interview on a subsequent date convenient to them. Many of the respondents were kind enough to spare their valuable time for interviewing. The idea behind this was:

i. The respondents are involved in the field of higher education for most of their adult life. Hence it was necessary to collect important information relating to the respondents past experiences, beliefs, opinions and own thoughts for future.
Interviewing was used as a method of adding flesh to the statistical information already generated. It enabled the researcher to draw out qualitative information from the respondent.

It enabled the researcher to grasp the context of the data furnished by the respondent, reasons for their answers and to seek clarifications, wherever necessary.

The method of focused interview was used. Although the whole situation was carefully structured based on the response to the questionnaire and major areas of inquiry mapped out, the respondent was given considerable freedom to express his opinion of a given situation that was presented to him.

1.3.8. Tools and techniques adopted

Simple statistical analysis has been adopted for processing the data. The following statistical tools and techniques have been used.

i. Ratio

ii. Percentage.

In the controlled experimentation the researcher is largely concerned with the effect of manipulated variables upon behavior. After the groups are given the same criterion test, difference in average performance is calculated and conclusions are based upon a test of significance. Considering the objectives, this study does not prefer such an approach. The groups and sub-groups have been formed to make the sample representative of the population. It is not the purpose of the study to go in for inter-strata/inter-group comparison.

The objective of the study is to get insights into the overall change process and not to get into the study of personal ideologies of each group. The present approach of 'concentrating on the big picture', it is hoped, will result in significant gains in understanding the change process. With this objective in view, the two questionnaires have different questions, which are complementary in nature, and add to overall information.

1.3.9. Chapter Scheme

- Chapter 1 deals with the literature survey and also describes the methodology of the study.
- Chapter 2 traces the evolution of the University system - both International scenario and National.
- Chapter 3 gives details of development of university education in Karnataka and includes
the study of management of changes in other institutions of higher learning.

- Chapter 4 frames the analysis and discussion component of the study in five parts.
- Chapter 5 gives the findings and recommendations of the study.
- Glossaries of terms and bibliography have been given in the end.

1.3.10. Limitations in scope and analyses

The topic of “managing changes” is a dynamic subject. The change process itself may invoke an inherent degree of obsolescence even during the research period.

The degree of reliability of the conclusions drawn in this study depends, to a great extent, upon the accuracy of the information made available to the researcher.

In order to avoid unevenness in the data obtained, it was necessary to structure the questionnaire and the frames for coding of data somewhat rigidly. There were several limits to retaining the flexibility that would be required, either to pursue the issues in depth or to probe into the unique features of the situation.

The limitations of a highly structured research design could, at least to some measure be compensated by interviewing eminent personalities who enriched analysis and interpretation of data; as also, by supplementing the findings from the study with facts and figures from other studies, documents and records.

In spite of its many advantages, the interview method has many limitations, even when used as a supplementary research technique. Despite research that has been done to establish a body of principles governing the process of interview, interviewing remains largely an art, rather than a science. This represents another limitation of the study.

In case of the student population the findings lack depth. Although the study touches several points and raises several issues, it has not been possible to probe the issues in depth and pursue them exhaustively. The scale on which such a project would have to be conceived and executed would be massive. It could be a topic of another study from the student angle, and beyond the objectives of this study.

There is scope for development of a series of papers on specific themes, which have been identified in this study.