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Developing Core Competence, Competitiveness and Institutional Excellence in Uncertain & Challenging Economic Environment: A conceptual model for Indian Higher Education Institutions

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Abstract

Educational institution need to improve over a period of time in terms of quality, productivity, cost and effectiveness of teaching and learning. Higher educational Institution (HEI) such as universities, technical and professional institutions imparting graduate and post graduate courses need to create core competence for competitive advantage and educational excellence. Due to uncertainty in business and economic environment throughout the world including India, HEI need to adopt flexibility to overcome employment uncertainties. Factors such as strategy formulation after market analysis, and its execution, technology absorption particularly IT, innovation and creativity, quality management such as accreditation and ranking, collaborations and JV nationally and internationally with industry and other educational institution, resources, infrastructure, and capability development will create core competence which will result into competitive advantage and educational excellence in long term. A conceptual model has been developed in this paper which will provide guidelines for further empirical research and case studies.

Keywords: Higher Educational Institutions, Flexibility, Quality Management.

Introduction

The general purpose of school is to transfer knowledge and prepare young people to participate in society. As per Wikipedia, Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits. The word “education” is derived from the Latin *educâtiô* (“A breeding, a bringing up, a rearing”). “The purpose of education has always been to everyone, in essence, the same - to give the young the things they need in order to develop in an orderly, sequential way into members of society (Dewey, 1934). The function of education is to teach one to think intensively and to think critically. Intelligence plus character- that is the goal of true education (Martin Luther King Jr., 1948). The main purpose of the American school is to provide for the fullest possible development of each learner for living morally, creatively, and productively in a democratic society (ASCD, 1957). Achieving inclusive and quality education for all reaffirms the belief that education is one of the most powerful and proven vehicles for sustainable development (UNDP, Sustainable goal 4).

India has one of the largest network of universities and higher education institutions (HEI) including 753 universities and 41435 colleges. But the spending by the government of India is low in comparison to international standard. India spent 3.71% of the total expenditure in 2016-

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17 and has budget provision 0.47% of GDP in 2017-18. The enrolment ratio in HEI is 24% for the 18-23 age group including distance education (Economic Times, Feb 6, 2017). The enrollment at PG courses 9.71% and Research 0.77%. About 5.47% of UG and 24.57% of PG students are in university departments and national institutes. Out of 14.38 lakh teachers in HEI, only 10.54 % in universities. During 2014-15, only 27.8% of total PhD awarded were from science stream (UGC Report 2015-16).

Further, PhD are being looked as formality by educationists rather than looking it as a true research. Most of the researches are theoretical and do not find practical use and patents are negligible. The number of patents and technology transfer even by national institutes like IITs are very low in comparison to international universities. None of Indian universities and national institute find place in top 150 ranking in QS World University Rankings 2017.

The HEI particularly public universities & institution have come up in last 30-50 years. They are still functioning in traditional way of teaching and award of degrees. However few technical and professional institutions like IIT, IIM, NITIE, IIS etc. have made achievement in terms of quality teaching undergraduate and post graduate but still lack in research, design and engineering, patent and technology transfer for commercial use.

Educational institution over time need to improve in terms of quality, productivity, cost and effectiveness of teaching and learning. Higher educational institution (HEI) such as universities, technical and professional institutions imparting graduate and post graduate courses need to create core competence and competitive advantage to survive and serve better. Due to uncertain and turbulent economic environment in India and world over, HEI need to adopt flexibility to overcome employment uncertainties. Strategy formulation matching market needs, strategy execution, technology absorption particularly IT, innovation and creativity, quality management such as accreditation and ranking, collaborations and joint venture with national and internationaleducational institutionsand industry,developing resources, infrastructure, capability and skills will create core competence which in long term will result into HEI competitive advantage.

Status of Higher Education in India

There were only 20 Universities and 500 Colleges in the country with 2.1 lakhs students in higher education at the time of Independence of India in 1947.The increase in the formal system of higher education is 42 times in the Degree awarding Universities, 83 times in the Colleges and 136 times in the students enrolment(UGC Report 2015-16).

Spending on education as a share of the central government's total budgeted expenditure is falling for last three years. Education got 3.71% of the total expenditure in 2016-17. Education budget as a share of the GDP is 0.47% in 2017-18. In higher education (HE), the situation is much worse, with an enrolment ratio of just 24% for the 18-23 age group including distance education students (Economic Times, Feb 6, 2017). As on 31.03.2016, the number of Universities had gone up to 753 universities including central, state, private universities and institutes and 41,435 colleges in the Higher Education sector. The total enrolment in all courses and levels in regular stream was 284.85 lakhs where 19.02% in science and 29% in professional faculties. The student enrolment are UG 86.33%, PG 9.71%, Research 0.77%. About 5.47% of UG students and 24.57% of PG are in university departments and national institutes. Out of 14.38 lakh teachers in universities and colleges, only 10.54 % in universities. During 2014-15 out of 27,327 total PhD awarded, only 7617 PhD degrees related to science faculty (UGC Report 2015-16).

Most of the central and state universities are full-fledged universities offering courses in discipline of arts & linguistics, social sciences, natural sciences, technical and professional such as engineering & technology, business management, medical sciences etc. while national institutes, deemed universities, private universities and private institutions offer mostly technical and professional courses.

The central and state universities came into existence 3-5 decades ago when education was state monopoly where institution were protected and fully funded by the state. This resulted into non-competitive environment and poor quality of teaching and research. Even after opening the HE to private sector, there is very little pressure on these institution as funding is guaranteed by the state irrespective of HEI performance.

As technical and professional courses provide better return, there is prolification of pvt. HEI with poor quality of teaching, and infrastructure after liberalization of HE. As a result quality of qualified students and their employability suffered. Students of late, have shown dis-interest in taking admission into such sub-standard technical and professional colleges. In last 5 years few hundred private institutions have been shut down and this year 111 will be closed (AICTE Report). With introduction of quality accreditation by NAAC and NBA few years ago and ranking by NIRF since 2016 for all HEI including both state and pvt. has created some sense of quality consciousness but much more need to be done.

In view of the prevailing situation, there is need to re-look at education policy funding and quality of HEI more particularly the public higher institutions. The funding and pay & allowances need to be rationalisedbased on some select parameters such as accreditation and ranking. This will incentivisequality improvement and excellence.

The global economy continues to grow slower, widening inequalities, and with increasing educated youths, enough job opportunities are not being created. Education should meet the market demand in terms of knowledge, skills and values and aspiration of stakeholders (employers, students, funding agencies and government and social needs). Hence urgent need is being felt to focus on creating core competence for both public and private owned HEI which will create sustained competitive advantage over time.

Theoretical background

Core competence is a harmonized combination of multiple resources and skills that distinguish a firm in the marketplace (Prahalad and Hamel, 1991). It should fulfill three criteria such as to provide significant customer benefit, difficult to imitate by competitors and provides potential access to a wide variety of markets. Competitive advantage is the attribute that allows an organization to outperform its competitors viz. low-cost power source, highly skilled labor, geographic location, high entry barriers, and access to new technology (Porter, 1985).The ability of companies and industries to produce goods and services that meet needs locally and internationally, and generate relatively higher factor employment and income levels on a sustained basis (Momaya, 2014). Institutional core competence create sustainable competitive advantage that enables businesses to survive against competition and achieve industry leadership for decades and generations.

The major challenges being faced by higher education today are decreasing quality of education which is due to inadequate models of teaching process evaluation, inadequate application of existing quality control mechanism, favorisation of general education, devaluation of liberal model of education, plethora of information and fragmentation of knowledge, commercialisation of scientific projects (Gajiæ, 2010). The focus of all activities should be the needs of the student being major stakeholder. The challenges create favorable environment for transformation of higher

education institutions form faculty-centered into market-driven organizations and they put pressure on the existing institutions. As students today look for program quality, better service and value for money, all stakeholders should cooperate in creation and delivery of high quality service of higher education institutions.From literature, following factors that may contribute to core competence, competitiveness and performance improvement.

Strategy Formulation& Execution:

Strategic planning need to be accepted that can provide direction and facilitate progress. In the highly competitive world of higher education, universities must find ways to differentiate themselves and have individualised core mission. As universities have value systems guided by principles of long-term investment in educating people and creating and disseminating knowledge, strategic plan that is strongly linked to academic innovation rather than simply financial sustainability will have a better chance of finding support within the university. The institutional head directs to future desired state, support and commitment of academic community from the start of any strategic initiative is vital. Long-term as well as short-term strategic plans should be in place and strategic initiatives to be implemented to fulfill the strategic objectives set forth in the plans.

Resources, Infra-structure and Capability development:

The HEI including public and private lack in faculty, infrastructure of classrooms, labs, seminar hall, library, canteen, student hostel, teachers residential housing, ICT infrastructure and systems, skills and competency of faculties etc. This results into poor quality of teaching, knowledge transfer and personality building which affects the employability of graduates.

Most of the institution still follow traditional style of class room teaching, evaluation based on rote learning, outdated programs and syllabuses not in sync with market needs, teacher's salary and promotion not based on performance, lack of performance based incentive and encouragement for teaching and research. The quality of research and publication is poor. The number of quality PhD produced, research presentation in international conferences and publication in international journals and award of patent is very low. The aspects highlighted above need major focus for improvement as the resources, infrastructure and technology and capabilitiescreate institutional core competence and competitiveness.

Flexibility Adoption

Technological revolution, globalization and turbulence in business environment is developing a new competitive landscape. To manage the strategic discontinuities in this new competitive landscape, to build and maintain competitive advantage, requires an organization to adopt flexibility to succeed in the 21st century. To develop strategic flexibility and competitive advantage, requires strategic leadership, building dynamic core competences, developing human capital, effectively using new manufacturing and information technologies, employing valuable strategies and implementing new horizontal organization structures and learning and innovative culture. Thus, the new competitive landscape will require new types of organization and leaders for survival and global market leadership.

Universities serve the industry graduates with desired skill. To remain competitive, universities need to adopt flexibilities so as to meet the changing competitive business requirements.The strategic, organisational, operational and Information system flexibilities may be adopted for creating core competence and competitiveness.A balanced between change and continuity should be strived (Sushil, 2005). The public institutions need to adopt more flexibilities as they have lessor flexibility compared to private institutions.

Creativity and Innovation in Education

Change that creates a new dimension of performance is innovation (Drucker, 1986). An Innovation is a new idea, which may be a recombination of old ideas, a scheme that challenges the present order, a formula, or a unique approach which is perceived as new by the individuals involved (Zaltman et al. 1973; Rogers 1982). A culture of innovation and creativity requires organizations to break down functional barriers (Krishnamurthy 2011).Indeed, innovation looks different at varying levels of the organization, but continuous improvement must happen at all level of the organization. When a teacher discovers a different way of explaining theory of relativity, the result is better understanding the concept by the student. This is innovation at ground level - increased efficiency.

The higher education institutions today are facing continually to the increasingly dynamic, complex and uncertain environment which is due to demographic changes, global economy, the hyper-competition or knowledge-based competition (Daft and Lewin 1993). (Prasad). What is considered excellent today will only be considered as adequate tomorrow, there is a continual improvement loop, feeding back the learning from the results achieved and using creativity and innovation to drive increased value for all the stakeholders (EFQM).

Most of the institutions still stick to the traditional way of classroom teaching and research which poses challenges in terms of quality and meritocracy (Jayaram, 2011). With the sudden growth of higher education system, especially in the private domain, the question of innovationand creativity has been lost. (Prasad). There are significant opportunities for improvement on several fronts e.g. teaching and effective learning, research and development, design and engineering for product and technology, patent and commercialization of innovation, consulting, and specialised courses and value added services.

ICT adoption

The rapid development and growth of communications technologies have opened up new possibilities for information retrieval and analysis, and communication, research and collaboration at a distance. The information and communication technology (ICT) changed the way people were taught andIts ultimate promise is to bring new methods of teaching, learning and interaction. e-learning will become an even greater focus for universities in the future. It will increase the participation of students who were unable to attend university due to their location, health or other priorities, university facilities will still play a role (OECD, 2006). This combination of demand, costs, application of content and new technologies is opening the door to emerging competitors and new organizations that will compete directly with traditional universities and with each other for students and learners. (8)

However, only a few Institutions have adopted this technology and that too, only for certificate courses. There is a lack of recognition by the industry and HEIs to recognise e-learning courses and degrees. The government should recognize such an important aspect of education (GIFT, Prasad, 2013). There is urgent need of ICT application in course delivery through smart class rooms, online courses and recorded videos of lectures, examination and evaluation, degree award, university administration, online payment of fees, entrance examination, library etc. Educational ERP similar to commercial ERP e.g. SAP, Oracle EBS, MS Dynamics, covering all aspects of university management should be developed and implemented in all HEIs to improve efficiency and performance.

Quality Management

Quality is readiness for use (Juran, 1982), as value-added (Shannon, 1997), as constant, never-ending improvement (Foster, 2001). In marketing terms, consumer's satisfaction (Juran, 1988) or as adaptation to the requirements (Crosby, 1984). The quality is connected to three different causally determined values: purpose, processes and people. King Taylor, 1992). Quality of the higher education is a dynamic category based on the aspiration for constant improvement of all processes and their outcomes. The initiatives to evaluate higher education service quality is a result of dynamic changes in the environment of higher education (Martensen, et al., 2000): significantly higher level of needs and requirements by students and labor market, decreased public financing and increased competition. The three major drivers of education quality are customer requirements, need for organizational excellence and efficiency and responsibility toward stakeholders (Peter and Waterman, 1986).The employability and program quality were found to be key motives for students' choice of certain institution while location of the institutionis the least important (Helena &Mirna, 2012).

Further, educationists in India have started seeing research as just a formality to do PhD, rather than looking it as a true research. Most of the students find nothing extraordinary in their research. Patents won or doctoral programmes available are much small in number. It should be of grave concern that most of the institutions require our faculty to have PhDs, but there are no regulations for the organizations to stipulate proof of technological competency or teaching excellence in their new hires. Although, plenty of people in India still believe that IIIT& IIM are the ultimate place to success; none of the IITs & IIMs have featured (in top 150) in the QS World University Rankings 2017.

Internal quality assessment coupled with external qualitative assessment viz. NAAC and NBA accreditation, and NIRF ranking will help in improvement of quality, performance and competitiveness.

Collaboration and Joint Venture

Increased cross-border higher education has also meant increased competition among universities to attract both foreign and domestic students due to pressures of international comparison, quality labels, rankings and consumer choice. The increasing frequency of partnership and recognition agreements has also increased international pressure and competition (OECD, 2006).

Public and private institutions should form collaboration and joint ventures with other national and international institutions and industry to improve its quality label and ranking, core competence and competitiveness.

Internationalisation & Globalisation

In recent years, cross-border higher education has grown significantly and is expected to continue. This growth has been stimulated by a growing interest and demand for students to gain international experience. Internationalisation of higher education, where students travel abroad to study, or study in their home country through courses franchised from abroad (OECD, 2006), is leading to greater competition to attract more overseas students. As students are selecting a future place of study on the basis of the school, the programmes offered and its geographical location, improving the quality of programmes and teaching is naturally becoming a priority for universities to gain a competitive edge (OECD, 2011).

Under globalization, the competitiveness is critical to organizational sustainability. Global economic competitiveness rests on the knowledge and skill set of workforce (Brown et al., 2008). The HEIs to be responsive to those skills which constitute work-preparednessand the way forward

is through internationalization of higher education. They must stay abreast of the developments in academics, research and recruitment in other countries, and collaborate internationally. Those students with international education, even in a small measure, enjoy more employability in the global job market (EAIE, 2012) due to a variety of factors viz. exposure to multi-cultural environment and higher awareness of global trade, finance and industry operations. The benefits of international exposure in education and practical experience go beyond students. The higher education institutions also benefit in terms of more revenue generation, cross-fertilization of academic and research intellectual knowledge and stronger brand standing (Powar, 2012).

Incubation and Entrepreneurship

Innovation and entrepreneurship have become the prime drivers of economic growth. The establishment of technology business incubators to nurture nascent ventures by providing focused counselling and facilitation services together with smart workspace and shared office facilities. The new business incubator is an innovative system that provides a variety of support systems to entrepreneurs to accelerate new company development, speed the commercialization of technology, and contribute to economic growth.

India must tap the potential of innovation and patent by encouraging innovation, obtaining patent and technology transfer for commercial use. HEIs should aligns with the government's stated priority of creating a vibrant innovation ecosystem in the country and enhances the creation of intellectual property. To promote partnership with new technology entrepreneurs and start-up companies, IIT Delhi has started technology business incubator with Foundation For Innovation And Technology Transfer(FITT). It willallow individual and start-up units to develop product/services, leveraging on technologies having homology in the Institute to incubate. It will promote, celebrate and reward innovations and advancements. Would also help in filing patent.

Knowledge Management

Knowledge management (KM) is a systematic process by which knowledge needed for an organization to succeed is created, captured, shared and leveraged. According to Davenport and Hansen (1999), KM is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization's objectives. For educational institutions KM is defined as: The organized and systematic process of generating and disseminating information, and selecting, distilling, and deploying explicit and tacit knowledge to create unique value that can be used to strengthen teaching-learning environment.

The application of 'invisible' assets, innovation, leadership and competencies, or knowledge as the basis for competitive viability (Prahalad and Hamel (1990). Spender (1996) noted that an organization's knowledge and its ability to generate new knowledge is the key to achieve competitive advantage. employee know-how and reputation are perceived as the resources that make the most important contribution to business success (Hall, 1992). Zack (1999) postulated that competitive advantage arises due to the strategic use of resources and capabilities, of which knowledge is believed to be the most significant. Knowledge management infrastructure, knowledge quality, knowledge management systems properties, organization, task and general environment create sustainable competitive advantage (Leila et al., 2005).

The educational institutions create new knowledge, import it from diverse sources, and apply in a range of different environments (Tranfield et al., 2004). Characteristics of knowledge relevant to educational institutions include facts, opinions, ideas, theories, principles, models, experiences, values, contextual information, faculties and staff insights, and intuitions. KM is an integral process component of any institution's structure and process. Knowledge management improves an institution's capacity to acquire, share and use knowledge in ways that improve its survival

and success. The knowledge that resides in our institutions, the intellectual capital, is the sum of their human capital, structural capital and relationship capital. KM in educational institutions get support from teaching-learning environment, research activities, technology based knowledge and knowledge based networking.

Leadership and Culture:

The leadership provide strategic direction and plays important role in managing and promoting organisation culture. The beliefs, ideologies, principles and values of an organization form its culture. The organisation culture decides employee behavior, competition at work place, and give employees a sense of direction and environment for innovation and creativity. In other words, it can support creation of core competence and competitiveness.

Effective strategic leadership practices can help firms enhance performance while competing in turbulent and unpredictable environments of 21st century's global economy. Strategic leadership practices can become a source of competitive advantage and in turn contribute to achieving strategic performance improvement.

Institutional culture is a crucial aspect for facilitating sharing, learning, and creating knowledge and innovation. An open institutional culture need to be created with suitable incentives which can promote institutional knowledge and innovation by integrating individual skills and experiences.

Change Management

The dynamic business environment due to globalization,technology, evolving customer behaviorhave created disruptive change in 21st century which is the new normal across all industries and organisationsmust constantly adaptto such changes. It is roughly estimated that around 30 per cent of change management initiatives achieve lasting results.Continuous change or change readiness reflects new understanding that change is new the rule, not the exception. All organizations must change, constantly, in order to succeed.Change should be treated as a necessary organizational culture that embraces change. As changes are frequent and continuous, leaders need to focus on developing the culture of change itself.Hence the continuous change management is imperative for all organisations in this 21st century to survive and flourish.

Government Policies & Regulation:

There is grave failures in policy making in the field of higher education in India. The root cause of the problem is India's excessive bureaucraticcontrol in higher education. The other factors are large number of regulatory bodies, financing, red tapism, lack of sustaining regulation, and lack of accountability and incentive. The main hindrance to innovation in HEI is government policies and regulation and lack of culture for innovation(Prasad, 2014).

Based on literature, a conceptual model (Fig 1) is presented which need to be further validated by empirical and case studies to find the contributory effect of factors and its linkages in developing core competence and competitiveness of Indian higher educational institutions.

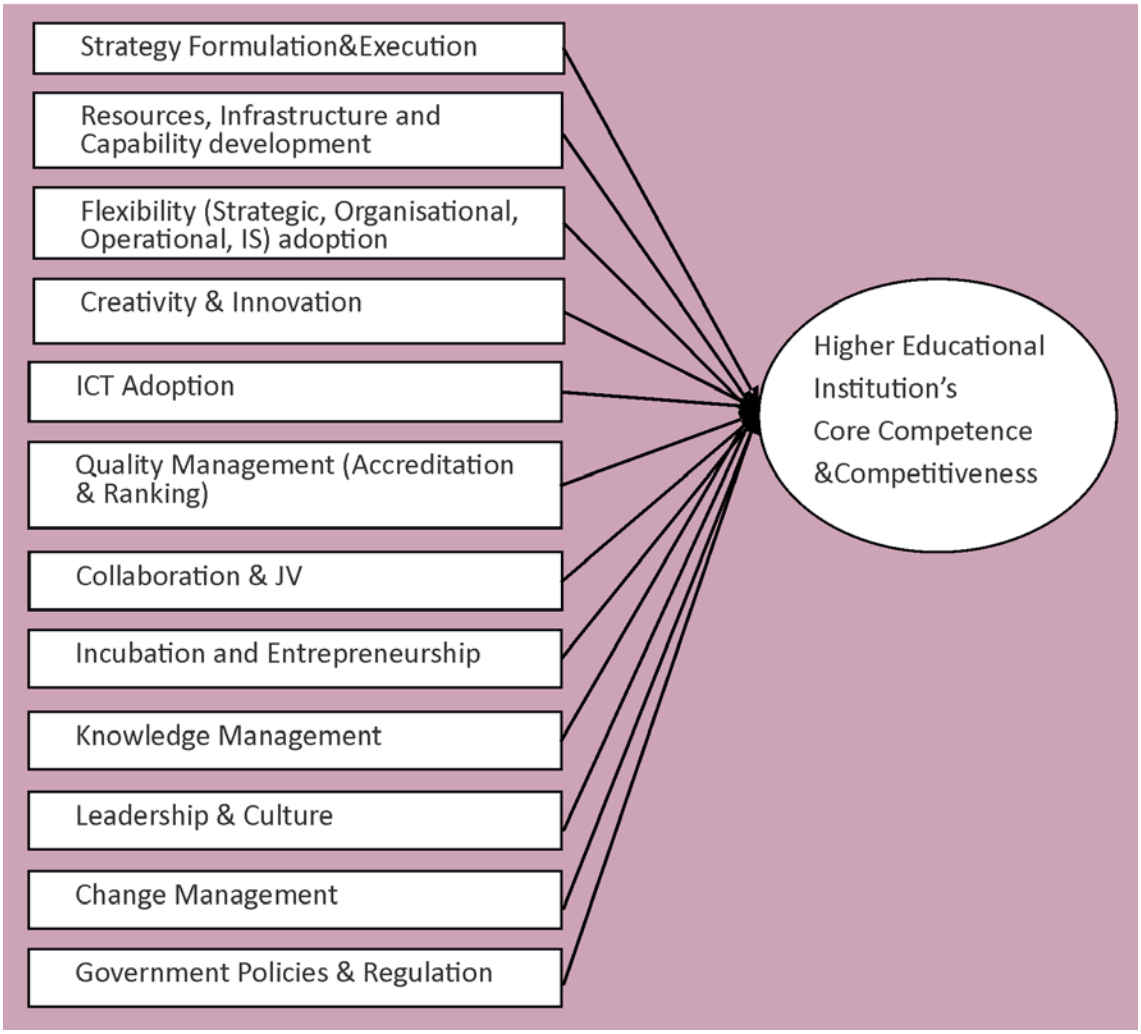

Figure 1: Conceptual model of HEI Core Competence and Competitiveness

Summary and Conclusion

The higher educational institution have grown over last seventy years in India but grown much faster in last twenty years both public and private. After liberalisation privates institutions have multiplied particularly in technical and professional education. The older and traditional universities have not been able to keep pace with time and environmental changes and still teaching in traditional style. The quality of teaching and learning, research and development is bigger challenges in most of the HEIs including public and private with few exceptions. None of the IITs & IIMs have featured in top 150 rank in the QS World University Rankings 2017. Number of patents and its commercialization is negligible. Quality of research paper and book publication is not satisfactory.

Technological revolution, globalization and turbulence in business environment is developing a new competitive landscape and is new norm for 21st century. The HEIs need to remain competitive to meet the market and institutional demand for supply of knowledgeable and competent

workforce. This require HEIs to develop core competence, competitiveness and performance excellence in order to improve the quality of teaching and learning and carry world-class research and innovation. Factors contribute to development of core competence, competitiveness and performance excellence of HeIs are; strategy formulation based on market analysis and customer needs and its execution, resources, infrastructure and capability development, flexibility such as strategic, organisational, operational, and IS flexibility adoption to manage uncertainties in economy, creativity and innovation in teaching and learning, executive development, research & development, and consulting, ICT adoption in teaching, research and educational management, quality management accreditation and ranking, collaboration and Joint ventures with national and international corporations and HEIs, incubation and entrepreneurship to create technological innovation and commercialization, knowledge management application, change management for effective implementation of strategic initiatives and reforms, leadership for strategic direction and creation of culture of quality, innovation and excellence and facilitation by the government through policies and regulation for educational management. Major changes required are in strategic intent, processes, systems, structure and culture and environment. The proposed conceptual model incorporating above factors is based on literature. There is scope for further research to validate empirically and through case studies to understand the effect of factors and its linkages in driving core competence and competitiveness of Indian higher educational institutions.

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