FRAMEWORK FOR EMBEDDING EMPLOYABILITY INTO UNIVERSITY OPERATIONS
POSSIBILITY FOR MAINSTREAMING ENTREPRENEURSHIP EDUCATION

RK UNIVERSITY, INDIA

Integrating Talent Development into Innovation Ecosystems in Higher Education
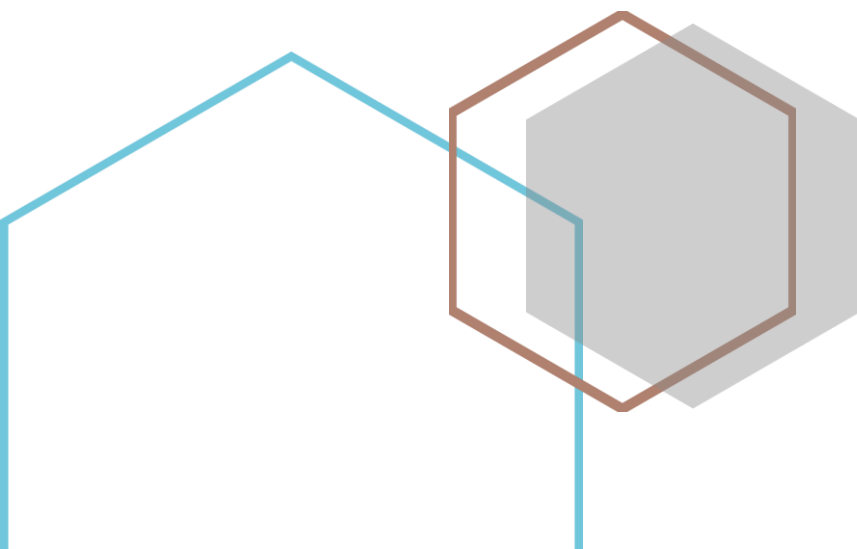
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The framework is a strategic document presenting the University plans and priorities for embedding employability across the key institutional activities – curriculum development and delivery, research and innovation and outreach. Its overall objective is to ensure that the University effectively promotes graduates' employability while contributing to national and regional developmental priorities.

The framework seeks to devise a feasible plan for including both external stakeholders (business, the citizen sector and the public sector) and students/recent graduates in employability strategies. It is focused on 'embedding' employability into various institutional activities rather than on devising ad hoc initiatives and measures for employability promotion.

OBJECTIVES OF THE STRATEGY

In view of the challenging employment scenario and rapidly changing macro-economic factors leading to ever increasing expectations from the students, there is a dire need to have organized and methodical approach to address employability at RK University.

The following concrete objectives are pursued with the implementation of this strategy:

- Improving quality of courses
- Introducing more Entrepreneurship courses
- Improving students learning experience
- Involving students in Innovation and Research
- Improving the employability skills of students

The strategy is intended to create opportunities for students by developing appropriate environment and ecosystem to enable co-creation of innovation ideas and their implementation to develop students' skills, bring them in contact with external stakeholders, and make them employable.

CURRENT INEFFICIENCIES AND GAPS

- RKU emphasizes the holistic nature of higher education with as many as 60% of bachelor programs and also 20% of master programs incorporating an entrepreneurial strand in the form of elective entrepreneurship courses. These percentages should be increased.

- Business practitioners have not been involved in delivering entrepreneurship courses in any of the degree levels yet.

- The R&D expenditures of RKU amount to 2-2.5% of the university's total budget. The university relies predominantly on own resources while external funding amounts to 8% only. The relative number of start-up companies supported by the University per full-time employed academic staff is 5%. In all of these areas, there is need for improvement.

- RKU does not follow a clear IPR policy.

- RKU needs to provide support to its students from all degree levels for access to internship and placement schemes.

  Support is currently managed through the Training and Placement Cell, which is "committed to provide all possible assistance to students in their efforts to find employment". There is a full time professor in charge of the unit. The Training and Placement service operates year round to facilitate contacts between companies and students. Liaison officers are available to respond to students' questions and concerns. The aim is to ensure that students have the information and skills necessary for an effective job search. Currently, 50% of students at RKU have already participated in internships in professional settings,

more than 50% - in coaching and mentoring programmes, and no less than 50% - in study tours, both domestic and international. A Register of industrial visits is available on the University website (http://rku.ac.in/placement/industrial-visit/). These efforts need to be continued and there should be an effort to improve those percentages.

RKU has signed Memorandum of Understanding (MoU) or otherwise cooperates with the following institutions of higher learning and R&D organizations:

- Remote Center of IIT Bombay (for MHRD Workshops)
- RK is a member of Indo US collaboration for engineering Education
- RK is an IBM Career education partner
- MHRD Center for deploying Aakash Android Tablet Computers
- RK is a TCS-ION Assessment partner
- RK is an Oracle academy Advance computer center member
- RK is a Microsoft IT Academy Program platinum partner
- Resource Centre – Spoken Tutorial Project-IIT Bombay
- Nvedia -CUDA Teaching Center
- National Instruments-LAB VIEW ACADEMY
- RK is an Infosys Campus Connect Partner

RK University, through its Training and Placement Centre, provides career guidance throughout the whole student lifecycle, and especially during the graduation year. Moreover, students take advantage of the advice and influence of personal mentors. Career guidance is available to all students but there is no career guidance which is specifically targeted at disadvantaged students. Career guidance services for alumni have not been provided yet, except for women alumni through the Women Cell at RKU. We identify the need to include alumni into career guidance.

FEASIBLE FUTURE IMPROVEMENTS, MEASURES AND ACTIONS

Increasing the quality or number of entrepreneurship courses and innovation trainings

- Invite entrepreneurs and successful businessmen and experts from industry to deliver talks and conduct sessions in entrepreneurship related courses offered by RK University.
- Introduce entrepreneurship education and innovation training in more disciplines, with the following disciplines being a priority in this respect:
  - Physiotherapy

- o Commerce
- o Computer Science
- o Ayurveda

Improving students' learning experience through practice-based methodologies, extra- and co-curricular activities, or more practical training and internships

The priority is the introduction of Practice Ventures in which students can be involved. Practice Ventures can be included indirectly in the curriculum of different programs of the university. Practice Ventures will facilitate learning about start-ups including the legal and other formal requirements for starting the business. Students should be able to design products and services and the entire management plan to promote, sale and earn money through these practice ventures.

Such ventures should be introduced in the following concrete areas:

- Reproduction of Cheapest Electronic Gadgets from e-waste
- Evaluation of versatility of thermoplastic granulation technique, novel drug delivery system like microparticles, pulsatile release formulation for the treatment of disorders having circadian rhythm
- Studies on suitability of thermoplastic granulation technique to formulate solid oral drug products of all the categories, i.e. immediate release, extended release and delayed release
- Physiotherapy for the geriatric population, compensatory approaches to enhance daily routine activity
- Marketing intelligence, social media marketing
- Development of web/mobile based solutions for various organizations to digitalize the organizational process.
- Sustainable concrete design for the industries
- Entrepreneurship ecosystem for academic institutions
- Soft skills and domain related employability skills
- Standardization of herbal medicines, detection of substitution & adulteration
- Weeds as medicine
- New scientific ethics and etiquettes
- Pharmacy research
  - o Isolation of rat ileum and washing it with sterile medium removing all the faecal content
  - o Preparation of growth media for growth of the cells mimicking all the In-vivo conditions of the animal body

- o Preparation of cell suspension of rat ileum and dispersion in the growth media

- o Incubation and growth of the monolayer of the cells

- o Formation of three-dimensional structure from monolayer cells

- Development of artificial tissue

- Conjugated nanomedicine for cancer

- Generation of new chemotherapeutics agents: needs from local level to national level

- Cancer nanomedicine, synthesis of nitrogen rich adducts and coating by "artemisia afra" plant extract to generate a new chemotherapeutic agents

- Investigating how the production, availability and supply costs of agricultural residues to produce electricity

- Lean manufacturing

- Water-system response rates to climate change

- Reducing Global Warming and conserving energy by the reuse of waste heat generated by electronic appliances.

- Upgrading technologies to manage and treat pollutants — from biological waste to toxins

- Financial Inclusion

- Leadership and Decision Making

The other priority for the university to strengthen its existing initiatives for involving external stakeholders, to make the relationship with external stakeholder mutually beneficial and to improve dialogue. External stakeholders should be more actively included in designing curriculum, designing assessments and conducting assessments.

FINANCIAL AND ORGANIZATIONAL RESOURCES AVAILABLE TO IMPLEMENT THE NEW ACTIONS

Current operations of University have in practice been based on the budgets approved in the past at the appropriate management level of University. The University has allocated resources at central level and at individual school/department level. Current resources, including working capital and fixed assets, are allocated based on needs analysis carried out in past.

For the future, in order to deploy this strategy, the University will need to allocate additional funds and resources.

| **HUMAN RESOURCES AVAILABLE TO IMPLEMENT THE NEW ACTIONS** | RK University employs two categories of employees: teaching staff and non-teaching staff. Teaching staff includes teachers and lab assistants in categories like Professors, Associate Professors, Assistant Professors, Lab Assistants, etc. Non-teaching staff includes Administrative Officers, Executives and others in several departments and functions at University and School level.

For the new proposed actions, the university aims to rely on the contribution of teaching and non-teaching staff members, and the initial assessment is that these activities should be possible to perform as part of their regular job requirements. Additional work will be remunerated when needed. Staff members will be incentivized based on existing norms of remuneration as coordinated by the HR Function of the University. |
MANAGEMENT OF THE IMPLEMENTATION OF THE PROPOSED NEW ACTIONS	The activities envisaged by this strategy should be managed by individual School Directors and senior professors at the respective schools.
LEADERSHIP IN THE PROCESS OF INSTITUTIONAL CHANGE	Overall leadership in the implementation of this strategy should be responsibility of the senior management, led by the University President.
STAKEHOLDER ANALYSIS	The following table presents the current stakeholder analysis:

Stakeholder (group or person)	Stakeholder position toward the proposed actions	Stakeholder's level of influence – capacity, influence and power to oppose or facilitate the proposed actions	Stakeholder's level of interest in the change	Possible approaches to winning this stakeholder over or limiting its negative influence
Respective Director	Positive	High	High	Discussions and meetings
Senior Faculty Members	Positive	Low	High	Discussions and meetings
Training and Placement Officers	Positive	High	High	Discussions and meetings
Alumni Members	Positive	Low	Low	Discussions and meetings
Industry Members	Positive	Low	High	Discussions and meetings
Students	Positive	Low	High	Discussions and meetings
Management	Positive	High	High	Discussions and meetings
Admin Exe	Positive	Low	Low	Discussions and meetings

Stakeholder Matrix Analysis

	Latents	Promoters or opponents
A lot of power and influence		a. School Directors / Heads of department b. Management c. Training and Placement Officers
	Apathetics	**Defenders or critics**
Little power and influence	a. Alumni b. Admin Executives	a. Senior Faculty Members b. Industry Representatives c. Students
	Little interest in the new actions	**High interest in the new actions**

EXPECTED IMPACT OF THE NEW ACTIONS

- Satisfied management, faculty members and students
- Better employment: better salary and job profiles
- Higher enrolment into entrepreneurship and other courses of students with better profile

RISK ANALYSIS

The following risks are associated with the implementation of this strategy:

- Failure of planning
- Low motivation of faculty and staff to get involved in the implementation of the proposed actions
- Internal conflicts (between Departments, or between senior management and staff)
- Ineffective coordination
- Insufficient quality of work of involved staff
- Insufficient interest on behalf of target groups (students and external stakeholders)
- Lack of skills and experience on the part of the students and external stakeholders to get involved in the implementation of the proposed actions
- Changing national priorities or government requirements

The following strategies of risk mitigation will be used:

- Failure of planning (AVOID)
- Low motivation of faculty and staff to get involved in the implementation of the proposed actions (AVOID)
- Internal conflicts (between Departments, or between senior management and staff) (MITIGATE)
- Ineffective coordination (MITIGATE)
- Insufficient quality of work of involved staff (MITIGATE)
- Insufficient interest on behalf of target groups (students and external stakeholders) (MITIGATE)
- Lack of skills and experience on the part of the students and external stakeholders to get involved in the implementation of the proposed actions (MITIGATE)
- Changing national priorities or government requirements (ACCEPT)

Stakeholder (group or person)	Impact
Respective Director	Better branding and positioning of School
Senior Faculty Members	Contribution to research and venture
Training and Placement Officers	Improved employability
Alumni Members	Improved participation
Industry Members	Increased collaboration with University
Students	Better employment
Management	Better employment of students
Admin Exe	Better participation

S W O T   A N A L Y S I S
F O R   T H E
P R O P O S E D
A C T I O N S

Internal	Strengths	Weaknesses
	- Potential for direct impact on student employability - Existing collaborative undertakings within the University, with contribution by management, teachers and others - Existing staff and physical resources that can be used for successful implementation.	- Appropriate planning and implementation will be a challenge due to the diversity of research areas - Many students lack the right attitude for involvement.
External	Strengths	Weaknesses
	External stakeholders are positive and interested in the proposals.	Inappropriate communication and collaboration on the part of external stakeholders can be a threat to success.

L O G I C A L
F R A M E W O R K

Below we present the logical framework guiding the implementation of the strategy.

Objective(s)	Activities	Indicators	Means of verification	Assumptions
Improving the quality of teaching	Involving external experts and practicing entrepreneurs	Number of external experts involved in teaching	Academic reports	External experts are available and eager to contribute with or without compensation
Introducing more entrepreneurship courses and updating existing curriculum in line with the requirements of business	Updating the curriculum and program structure; introducing new courses on entrepreneurship	Number of new entrepreneurship courses	Academic reports	Availability of trained and interested teachers in every school and department to deliver the updated courses
Improving students learning experience	Facilitating the establishment of Practice Ventures	Number of Practice Ventures established	Academic reports	Exposing students to business ideas will be met with high levels of motivation on their part
Involvement of students in innovation and research	Designing and implementing more research or innovation projects with internal and external stakeholders	Number of research or innovation projects involving scholars, students and external organizations	Project reports	External stakeholders will be eager to contribute to projects and to engage in more projects
Improved employability skills of students	Deeper and extensive involvement of external stakeholders in course design and assessment	Number of external stakeholders participation in the design and assessment of programs and courses	Academic reports	External stakeholders will be eager to contribute to course design and assessment