

Prospects in HRD & R&D for the Carpet Sector

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Abstract

For the growth of any sector institutions concerned play or should play its definite role. In playing such role therefore portfolios must be in place. The functioning need to be geared up in a manner that facilitate providing qualitative education/training, rendering timely and satisfactory services in all created portfolios to the industry and all other stake holders, improving quality management system on continual basis not only in better but in spirit too. Achievements and prospects of IICT shall be discussed as a case study for the benefit of all concerned.

Key words: Growth, role, portfolios, qualitative education, satisfactory services, achievements, prospects, benefits

1. Introduction

Indian Institute of Carpet Technology (IICT) set up by Ministry of Textiles, Govt of India under the aegis of Development Commissioner (Handicrafts) with the object of providing desired support in development of carpet and allied textile industry. Through a Registered society in 28th November 1998, beginning was made and became truly functional with effect from 1st November 2001. Institute was formally dedicated to the nation on 11th May 2002. IICT at its beginning created portfolios and role as on date are as under:

❖ Integrated achievements in mentioned portfolios are as under :

IICT has served the industry in all its four portfolios successfully with salient achievements in **HRD**: Star Performer of university twice, Gold and silver medal recipient by IICT students consecutively in

the years 2009 and 2010, Top Scoring in GATE & IIT M.Tech Courses; **DCD:** Design and creation of Designers meeting the need of industry; **R &D:** Patents and commercialization of developed Carpet backing system, India knot, Cross Bar horizontal looms, several process and product developments; **TSI:** testing/ certification meeting international standard, consultancy.

The details are as under: (01-04 – 2000 to 31 – 03 – 2011)

Sr. No.	Area					Remark
1.	1.1 B. Tech. & Short Term Courses- Students Strength					Pass outs /Completion B. Tech 184 (100%) Short Term 423(100%)
	Year	B.Tech.	Short Term Courses			
			CAD	Computer	Dyeing	
	Total	356	320	92	68	
	1.2. International Distance Learning Programme (IDLP)					
1.3 NBA Accreditation 1.4 The Institute has been recognized / certified as a Testing Centre for MES courses by DGET, Govt. of India. 1.5 Permanent affiliation of UPTU					The NBA accreditation is already obtained for three years w.e.f. 19-07-2008. ~2000 artisans have been trained through various sponsored projects under skill development / Upgradation programmes. For creating 2400 master trainer cum supervisors, application submitted under ISDS Permanent affiliation of UPTU is obtained on 19-01-2009 w.e.f. 01-07-2008.	
2.	2.1 Creation of New Designs/ Map		3743 +5082*		More than 3700 designs have been created and provided to the interested industry Parties. * Created a bank Under Design Bank Project .	

3.	3.1 CARP COST SOFTWARE		Used for Research and training . Modification to make Industry friendly window based in process.
	3.2 CARPET BACKING SYSTEM		The system has been considered for commercialization by MSME, Government of India through Government of Uttar Pradesh, involving M/s Bhawana Business Pvt. Ltd .Secretary , MSME personally inspected the development & site and directed cluster cell to expedite functioning by 15 th Aug 2011.
	3.3 INDIA KNOT		The license is given to one organization, further licensing is in process. Initiative for introduction of Jacquard is being undertaken.
4.	4.1 Sample Testing	10247	More than 10000 reports have been issued till date to exporters / buyers on different aspects of wool, carpet & textile, serving the industry as per the mandate.
5.	More than 500 distinguished visitors from the Government, Industry and other sectors visited Institute and provided the guidance, appreciating the efforts of the IICT staffs / members under able direction.		
6.	Achievement over Result Framework Document (RFD) for the year 2010-11 details available in P.P.P.		96%

2. Research & Development (R&D)

Completion of ~50 sponsored projects: covers product/ process & capacity building

IICT has developed CARPCOST software for cost management. Software is being covered under Copyright. It has been given to interested industry personnel for their commercial trial and feedback. One can contact IICT for further details.

New Cross Bar Horizontal Loom: Validated and accepted by industry due to reduction of drudgery and comfort to the weavers resulting improved quality and productivity. The design is patented. For supply of loom one can contact the licensee (M/s. Rinkoo Welding Works, Maryadpatti, Main Road, Bhadohi, Tel: 09415256616)

“**Advances in Carpet Manufacturing**” published by M/s Woodhead Publishing House, UK in association with The Textile Institute, Manchester in 2010. One chapter entitled “**Process Control in Manufacturing Home Textiles including carpet**” is being authored by Prof. K.K.Goswami to be published by **M/s Woodhead Publishing, UK**

3. IICT in prospect (a result of a decade) and retrospect (resolution for 2011) :

IICT has served the industry in all its four portfolios successfully with salient achievements in **HRD**: Star performer of university twice, Gold and silver medal recipient by IICT students course consecutively in the years 2009 and 2010, Top Scoring in GATE & IIT M.Tech Courses; **DCD**: Design and Designers creation meeting the need of industry; **R &D**: Patents and commercialization of Snehabha backing, India knot, Cross Bar horizontal looms, several process and cross product developments; **TSI**: testing/ certification meeting international standard, consultancy. For 2011, identified gaps in all portfolios are being proposed to be taken up by IICT through its intellectual potentiality and supportive stakeholders (students, industry and trade) and dynamic approach of E.C of IICT headed by DC (Handicrafts) flanked by very effective members from government, industry, academia, statutory bodies and all concerned.

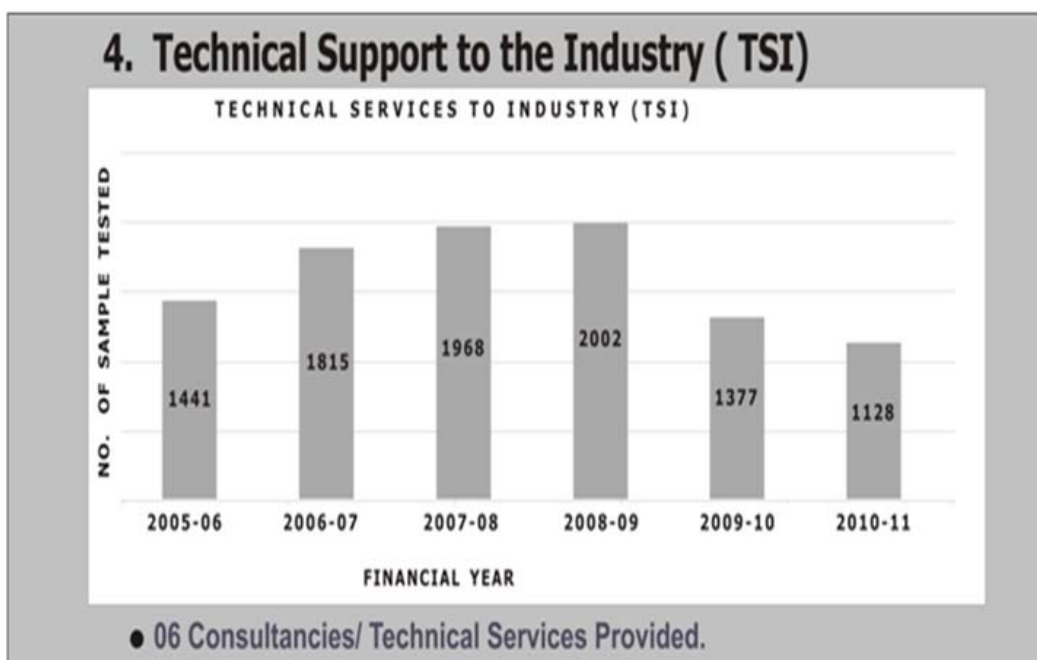
Sr. No.	Area/ Portfolio	Gap proposed to be addressed in 2011
1.	HRD	Support to industry in development and up gradation of skill especially in Hand knotted activity
2.	DCD	Design solution: Design Bank to be made open and popular: single window solution – an initiative
3.	R&D	<ul style="list-style-type: none"> ➤ Reduction of drudgery of artisans: loom, processing and finishing devices ➤ Kaizen style of activity: projectile approach to solution ➤ Standardization of process: cost and quality ➤ Process and product development: washing system, jacquard system to India knot/ broadloom, tufting technique, hi-tech-nano/ plasma/ phase change materials/ dry process in lieu of wet
4.	TSI	<ul style="list-style-type: none"> ➤ Introduction of non available testing systems: hexapod, anti bacteria/ insect/ moth etc. ➤ Benchmarking through inter firm comparison (IFC) and data banking

IICT is committed to fulfill its resolution in 2011 with the expectations of due support from industry and all concerned.

IICT is further committed to achieve targets set through RFD for the year 2011-12 and projected target till 2013-14.

4. Technical service to Industry:

Testing/certification meeting international standard, consultancy for 2011, identified gaps in all portfolios are being proposed to be taken up by IICT through its intellectual potentiality and supportive stakeholders (students, industry and trade) and dynamic approach of E.C. of IICT headed by DC (HC) flanked by very effective members from government, industry, academia, statutory bodies ad all concerned.



5.0 Result-Framework Document (RFD) for Indian Institute of Carpet Technology, Bhadohi (2010-11)

Column 1	Column 2	Column 3		Column 4	Column 5					Column 6		
Objective	Actions	Criteria/ Success indicator	Unit	Weight	Target/ Criteria values					Achievements	Raw Score	Weighted Raw Score
					Excellent	Very good	Good	Fair	Poor			
					100%	90%	80%	70%	60%			
1. Human Resource Development (HRD) for Carpet and allied Sectors (Advance Carpet Technology (ACT), Textile Designing Technology (TDT), Home Textiles Technology (HTT), Wool, Silk, etc).	a) B. Tech degree course in Carpet and Textile Technology with specializations (ACT, TDT, HTT) and other industry driven training programs (Modular Employable Skill, Distance Learning Program)	Intake/enrollment of students/trainees	No.	0.5	210	189	168	147	126	225	100%	50%
			% Pass		100	90	80	70	60	100		
			Teaching Pedagogy		5	4	3	2	1	6		
			Faculty Development		5	4	3	2	1	6		
			Publication (No.)		5	4	3	2	1	8		

<p>3. Technical Support & Service to the Sector</p> <p>Comprehensive R & D support to the sector</p>	<p>To upgrade the existing NABL Accredited Laboratory</p>	<p>Commercial Introduction of Carpet of New Testing facilities to meet the requirement of stakeholders</p> <p>Commercial Introduction of Carpet washing system</p> <p>Commercial Introduction of improved loom for weaving (crossbar)</p> <p>Commercial Introduction of improved software for carpet costing (Carpcost)</p>	<p>No.</p>	<p>0.1</p>	<p>10</p>	<p>09</p>	<p>08</p>	<p>07</p>	<p>06</p>	<p>10</p>	<p>100%</p>	<p>10%</p>
<p>Dec. 2010 100% 20%</p>												
<p>Time line</p>												
<p>0.2 Dec 2010 Jan 2011 15 Feb 2011 28th Feb 2011 Mar 2011</p>												

Performance evaluation at the end of the year

4.Comprehensive Design support to the sector	Development of new designs & Design Bank	Successful installation of additional design software Successful installation of Design search software & training to potential designers Bank of Design	No. of software No. of trainees No. of design	0.1	05 120 600	04 108 540	03 96 480	02 84 420	01 72 360	05 120 5180	} 100%	10%
5. Infrastructure	Procurement of plants & equipments to support practicals Construction of buildings	Successful installation Timely completion	Time Line	0.1	Dec 2010	Jan 2011	15 Feb 2011	28 th Feb 2011	Mar 2011	March 2011	60%	6%
Composite Score =												96%

6. SWOT ANALYSIS

Strengths (S): TO MAINTAIN

- Commitment of committed intellectuals: to continue.
- Situated in industrial hub: Interaction with many but small units to continue.

Weaknesses (W): TO OVERCOME

- Intervention of Technology & economy of the Art & Craft sector: Massive campaigning and awareness.
- Brand Imaging: To be created appropriately through publicity etc.

Opportunities (O): TO EXPLOIT

- Multi use of Facilities: Conversion of IICT to Indian School of Textiles (IST).
- Skill gap: Training through Modular Employable Skill (MES).
- Further up gradation of Laboratory to take care of Non Tariff Barrier.
- Industrial scholarship: adoption by industry

Threats (T): STRATEGY FORMATION TO COMBAT

- HRD and R&D: Inadaptability: Paradigm Shifting.
- Location or disadvantage: Poor show in Students/faculty:: Upgradation in living / communication and work/service conditions.
- Time to time business recession: Poor exploration of IICT portfolios:: Tie up with other sectors of textiles also to cover up the gap.
- De motivation resulting apathy to work: Appropriate motivation whether subjective and or objective.

7. Conclusion

Over a decade, IICT contributed through its established portfolios particularly in HRD & R&D to a great extent to meet the existing gap including achieving all RFD targets for the year 2010-11. Resolution for 2011 & RFD for the forthcoming years are the continued expression of commitment for serving the trade. Thus IICT is committed to perform the desired institutional role in supporting the trade to take to new heights in all relevant fronts.