

IMPACT OF DIGITAL TECHNOLOGIES ON SOCIETY AND BUSINESS: NURTURING MANAGEMENT STUDENTS IN A DIGITAL ENVIRONMENT

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ABSTRACT

Institutes like SVIT (Sai Vidya Institute of Technology) are predominantly engineering complexes well known for successfully producing engineering graduates in various disciplines. Since 2009, SVIT also pioneered imparting quality education in the management discipline.

This paper researches the beneficial aspects of empowering management students with digital technologies from a crucible of engineering excellence – an innovative manner of teaching. It investigates whether the learning outcomes due to the digital engineering interface empowers management students and propels them towards better performance as compared to stand alone management institutes.

While both types of institutes have access to excellent libraries and management laboratories with state-of-the-art computer centers, it is the environment blossoming with digital engineering fervor that generates excitement and propels the management student towards accelerated performance. A readily available pool of engineering faculty members, actively involved in developing and incorporating new interactive teaching methodologies in the field of digital technologies (engineering and sciences) are leveraged for developing management resource required by industry today.

This fusion of ideas between the engineering and management faculty helps bridge theoretical concepts with practical exposure through constant interaction easily possible within the institute precincts. Further lots of industry interaction which the MBA curriculum requires and which makes students get an insight in the management concepts thoroughly is easier in an engineering institute, where its faculty, engineering discipline and workshops, make this domain knowledge available from Day 1.

The paper investigates the performance of MBA students at SVIT from the 2007-09 batch onwards and determines how integrating engineering disciplines with the MBA philosophy, is the result of the result of learning outcomes due to innovative teaching which addresses major challenges, develop complete solutions and knowledge which is shared and transferred to industry through teaching, collaboration and entrepreneurship, making it more acceptable to the ultimate end user. This performance of SVIT's MBA students and their acceptability to industry is analyzed and enumerated.

INTRODUCTION

Institutes like SVIT (Sai Vidya Institute of Technology) are predominantly engineering complexes well known for successfully producing engineering graduates in various disciplines. Since 2009, SVIT also pioneered imparting quality education in the management discipline.

By empowering management students with knowledge and skills from a crucible of engineering excellence, an innovative means of teaching has their performance improved? Has the learning outcome undergone a change for the better? Has the available engineering infrastructure propelled management students towards better performance as compared to students of standalone management institutes? These issues need investigation and in depth discussion.

While both types of institutes have access to excellent libraries and management laboratories with state-of-the-art computer centers, it is the environment blossoming with engineering fervor that generates excitement and propels the management student towards accelerated performance. A readily available pool of engineering faculty members, actively involved in developing and incorporating new interactive teaching methodologies in the field of engineering and sciences are leveraged for developing the management resource required by industry today. Is the industry appreciative of these skill sets?

The fusion of ideas between the engineering and management faculty helps bridge theoretical concepts with practical exposure through constant interaction easily possible within the institute precincts. Further tremendous industry

interaction which the MBA curriculum requires and which makes students get an insight in the management concepts thoroughly is easier in an engineering institute, where its faculty, engineering discipline and workshops, make this domain knowledge available from Day 1. The large population of students requires in-house facilities such as transport, canteen, large sized hostels each of which require specialized skill sets in transportation management and, man management invoking the traditional disciplines of HR, strategic management and operations.

Objectives

This paper investigates the performance of MBA students at SVIT from the 2007-09 batch onwards and determines how innovative teaching has an impact on learning outcomes when integrating digital engineering disciplines with the MBA philosophy, permits students to address major challenges, develop complete solutions and knowledge which is shared and transferred to industry through teaching, collaboration and entrepreneurship, making it more acceptable to the ultimate end user.

The linkage between each of the factors enumerated below has been elaborated upon:

- [1] The relationship between “digital (engineering) facilities” and placement of MBA students - an innovative teaching methodology.
- [2] A comparison of the MBA students from technological institutes with students from stand alone management institutes.
- [3] The acceptability to industry of SVIT’s MBA graduates by analyzing repeat recruitment from industry.
- [4] A review of the placement practices for MBA’s from technological institutes like SVIT by leveraging the facilities available.
- [5] A focus on entrepreneurship to determine how SVIT’s MBA students get equipped to run their own enterprise due to the integration of engineering disciplines at SVIT with MBA philosophy.

Detailed Findings On The Performance Of Students :

The Performance of MBA students as a result of focused learning on digital technologies with its impact on learning outcomes is reflected in:

- [A] Placement of the students in various companies / services / societies
- [b] Students engaged in entrepreneurship
- [c] Results obtained by the MBA students in the university (VTU) examinations.

An analysis of each of these functional areas has been described below:

1. Mba Students Placement Analysis

At SVIT, though the engineering college started from 2008, Department of Management Studies was formed in 2009 to impart MBA education in 3 streams: [i] Finance, [ii] HR and [iii] Marketing.

The management students have been placed as follows:

Sl.no	2009-11	2010-12	2011-13	2012-14	2013-15	2014-16
1	Share khan	India Estate	Sun Pharma – (7)	Toyota	Vodafone	ANZ
2	Ocqwin – (2)	ANZ	Music institute	Cooperative bank	Sindhu cargo – (2)	Accenture
3	Thomas & writers	HR consultancy	HSBC– (2)	Concentrix	Value point properties	Vodafone
4	VRL	Lecturer	Lecturer – RR college	Value point properties	Stock brokering institute	Thomas & writers
5	Infosys	Brokerage institute	Air Indi sats	ICICI Bank	Columbia asia hospital	IBM -(2)
6	Apparel park	HR consultancy	HR consultancy	Finance company - (3)	Capgemini	Concentrix – (3)
7	Henna solutions	Nandhini	I Gate	Realtors	Concentrix	Hatsun

Sl.no	2009-11	2010-12	2011-13	2012-14	2013-15	2014-16
8	Grant thornton India pvt ltd	Private finance company	Agriculturist	Capgemini –(2)	IBM	Construction company
9	KPMG– (2)		Medical Representative – Genesis	Scotts garments	Karvy	Star Insurance
10	Canara bank	IBM – (2)	Business – marshal arts	HR consultancy –(3)	Thomas and writers	E- saral
11	IBM – (2)	Asian paints	Milky mist dealer	IBM –(3)	Presidency college	Airtel
12	Northern Trust	IBM	Finance company	Pride developers	HR consultancy –(3)	Axis Bank
13	Accenture	IAS	-	I gate	Pride developers	Entrepreneur (3)
14	Grant thornton India pvt ltd	HDFC– (2)	-	HSBC	Ultra tech	-
15	Ing Vysya	HR Consultancy	-	HDFC	Bombay royan fashions pvt ltd	-
16	Deutsche bank	PEPSI	-	Honda	-	-
17	Mannapuram Finance	KAS	-	Jubilian Foods	-	-
18	Vodafone HDFC	Real estate agent – (2)	-	Thomas cook	-	-
19		Private Finance company	-	Wells forgo	-	-
20		AXIS– (2)	-	Sriram properties	-	-
21	-	CUTE CUT – Business	-	TGS	-	-

2. Analysis Of Repeat Placement:

The following companies have constantly accepted SVIT, MBA students on a Repeat Basis:

COMPANIES	2009-11	2010-12	2011-16	TOTAL NO OF STUDENTS
IBM	2	2	7	11
SUNPHARMA	-	-	7	7
CONCENTRIX	-	-	5	5
HDFC	1	2	-	3
AXIS BANK	1	2	-	3
THOMAS & WRITERS	1	-	1	3
VODAFONE	1	-	2	3

Companies listed in Table above recruits candidates with high analytical ability. SVIT MBA students were successfully placed in these companies because of the Mathematics Department and focus by the Mathematics Faculty for MBA student development... Subjects such as quantitative methods, operations management, business analytics needs were disseminated through high quality experts with statistical and mathematical background required in the engineering domain. The SVIT Mathematics Faculty enabled MBA students crack quantitative subjects in the MBA exams and emerge successful in competitive exams such as the IAS, KAS and other government exams. Two management students have cleared the INDIAN ADMINISTRATIVE SERVICE EXAM, KARNATAKA ADMINISTRATIVE SERVICE EXAM. Several students are placed with regular frequency in

banks such as AXIS, HDFC, ANZ, and HSBC where Mathematics based Quantitative Techniques are required and recognized. A student secured 3rd Rank in the VTU examination due to his mathematics based analytical skills.

3 Entrepreneurship

SVIT has established an Entrepreneurship Development (ED) CELL in the year 2015 guided by the Entrepreneurship Development Institute of India Ahmadabad. Department of Management studies manage the ED cell in SVIT to support creative students to implement their ideas into products so as to create more number of entrepreneurs. Here the Engineering domain helps in nurturing more products. Students have started their companies in different fields like agriculture, digital (e) -commerce, real estate etc. Around 10 MBA students have initiated start ups such as CUTE CUT, PRIDE DEVELOPERS, and VALUE POINT PROPERTIES.

An inclusion within the ED cell is the initiative by Wadhvani Foundation's Entrepreneurship Development Programs. This foundation mainly concentrates on exploring the entrepreneurial skill and creative ability of the prospective students by conducting various ED courses and creating awareness about the facilities available to the entrepreneurs in our country. MBA and Engineering students are chosen. In the business environment creative and talented students are encouraged to implement their ideas and also provided with financial support to encourage a mix match of budding MBA graduates with their Engineering colleagues.

This program is coordinated by engineering and management student volunteers who improve their entrepreneurial qualities on the job within the precincts of the institute... An active coordination, cooperation and participation by prospective students in SVIT where management students have taken technical support from the engineering graduates for their start ups is possible only in an environment blossoming with engineering fervor that generates excitement and propels the management student towards accelerated performance due to the presence of the engineering domain at all times.

Placement Year	Total Students	No of Entrepreneurs	% of Batch
2009-11	35	5	14
2010-12	53	8	15
2011-13	60	7	11
2012-14	56	6	10
2013-15	42	5	11
2014-16	43	6	13

Chart showing percentage of MBA students taking up Entrepreneurship @ SVIT

4. Review Of Academic Results

In SVIT, academic results of all the branches are analyzed in a professional manner. Special attention is given to Post Graduate courses i.e. : MBA where measures are taken to improve the results by identifying weak students for organizing remedial classes, appreciation for rank holders, conducting periodic meetings with students through a Proctor system. These measures require adequate source of human resources and infrastructure including lecture rooms with a stringent Review Mechanism. SVIT follows the same procedures and measures for both engineering and MBA students. The MBA students benefit from the stricter competition and spirit Vis a Vis the undergraduate engineering students. The following chart depicts the improvement in the results of MBA students for last 5 batches. This improvement is solely due to the competitive environment and stimulus provided by the engineering students.

Sl. no	Academic Year	Strength	FCD's	FC's	Total Pass	Total Pass (%)
1	2009-11	43	17	19	40	93
2	2010-12	55	10	34	50	91
3	2011-13	59	10	38	54	92
4	2012-14	54	5	16	45	83
5	2013-15	50	10	28	45	90
6	2014-16	43	18	23	41	96

5. Utilization Of Engineering Facilities By Mba Students

SVIT – as one of the upcoming engineering college provides various digital facilities for both engineering and management students. i.e.: Civil Laboratories, Mechanical Engineering Workshops, Physics Laboratories, Chemistry Laboratories, Computer Science Laboratories and a Library.

The Engineering facilities enable SVIT's MBA students to enhance their knowledge in various sectors by having access to a readymade Business Laboratories which are used to vet several management algorithms and theories and to learn Best Practices. The end result is good performance in the placement field in both technical and non technical domains.

Listed below are cases demonstrating how MBA students have acquired jobs in various sectors by utilizing digital facilities @ SVIT.

a) Availability of well equipped computer and information science laboratories. Companies such as IBM, Cap Gemini, and Ocqwin recruit candidate's secured proficiency in computer systems. Around 15 to 20 management graduates of SVIT have been placed in these companies successfully. It was obvious that students were able to utilize the computer systems to learn different computer based skills and complete online management courses conducted by top management institutes.

b) Mechanical and Civil workshops

Students were able to acquire jobs in companies such as VRL, Honda Motors, Ultra Tech and Distilleries mainly because of their interest generated in the manufacturing sector due to the presence of Mechanical Engineering infrastructure and Faculty at SVIT. The MBA students were able to get the practical insight by involving themselves in mechanical and civil workshop activities such as model building, assembling, attending civil survey camps, participating in various competitions conducted by mechanical department within and outside the campus and obtaining concrete domain experience in the respective fields.

c) Language labs

Communication plays a vital role for MBA graduates in the context of placements. Communication skills were honed at SVIT by introducing English training classes for both technical and non technical students to improve their language ability. This helped MBA students to clear interview rounds and get jobs in dream companies such as Ernst & Young, ANZ, Thomas and Writers, and Northern Trust.

d) Infrastructural amenities

Basic amenities like transportation, canteen, seminar halls, libraries, play grounds, supports the learning process for the students. Additionally an engineering college like SVIT maintains several buses for commutation of students & faculty. Managing Transport facilities, maintenance of buses, Inventory of spares for the buses. Maintenance to prevent breakdowns and other skills were picked up by MBA students.

Running large hygienic canteens for large populations of engineering and MBA students taught them service magnet, catering applications, customer service and marketing and other management skills.

Conferences, workshops and seminars are the pillars of an MBA course which gives the platform to exhibit the knowledge gained in academic courses. Here due to the several engineering related Conferences also being parallel conducted at SVIT, MBA students benefited due to the larger platform available to MBA students due to the large populations of engineering students on the campus. Many MBA students have presented papers in the national level conferences organized in SVIT and also have attended workshops and seminars conducted inside and outside the campus. This resulted in accelerated development of curricular and extracurricular skill of the students and helped those secure jobs in Accenture, E-saral, Sindhu Cargo and Grant Thornton India Pvt. Ltd..

e) Talent identification

“SANCHALANA” cultural fest of fest is a large platform for SVIT students to project their talents and skills. Every year SVIT organizes technical as well as cultural fests for students to exhibit their talents and enjoy cultural events. An MBA graduate started a music school - several other students are involved in various cultural activities like dance, music, arts and sports- facilitated due to large scale Festivals organized for large populations of Engineering & Management students...

Tech Vidya (technical fest) – This fest is concentrated on the engineering streams where MBA students are allowed to participate in all the events. Management students interested in web design, modeling, robots building and other technical activities exhibit their skills and have commercialized their ideas successfully.

Sl. No	FACILITIES @SVIT	PLACEMENT SECURED / OUTCOME
1	Computer system labs	Canara Bank, Axis Bank, HDFC, IBM.
2	Civil & Mechanical workshops	Asian paints, Scotts Garments
3	Language labs	Ocqwen, ANZ, Cap Gemini
4	Library	E & Y, Wells forgo, Karvy, Sharekhan
5	Transportation	VRL Transport, Sindhu Cargo, Honda.
6	Canteen & play ground	Ultra tech, Realtors, pride developers.
7	ED Cell	HSBC, Grant Thornton India Pvt. Ltd. IGate.
8	NSS	Lecturers in Presidency, RR College and in other colleges.
9	Mathematics Faculty / Courses	IAS & KAS
10	Placement & Training Department	TGS, ICICI, Accenture.

Chart showing how students were placed with respect to the SVIT facility

6. CONCLUSION

As a result of the Innovative Teaching methodology, the impact on learning outcomes has resulted in the following:

[a] MBA students are getting placement oriented

MBA as a management course injects all varieties of skill sets in the students which are required by the corporate and outside world. SVIT moulds the MBA students in such a way that they are well placed in the companies. Activities such as workshops, seminars, fests will be mainly concentrated towards the overall development of students skill sets for the purpose of placement.

[b] MBA students are getting entrepreneurial:

ED Cell is successful in its path in SVIT as the programs conducted under this cell such as Entrepreneurship Awareness camps and workshops for students has helped them to implement their ideas into reality. Many creative volunteer students have gained deep insight about entrepreneurship and its importance to the nation as result students should not only become employees but also the employers.

[c] MBA students are getting specialized placement training

Apart from academics, placement activities like soft skill training, aptitude and interview skill training, language classes have been organized by the placement and training department of the college for both management and technical students so that every student of SVIT will be fully equipped for their future career.

[d] MBA students have their internship Projects more Placements oriented.

Project is a crucial part of MBA where final year students have to complete their internship training in selected companies for a period of ten weeks. The area of research for the project will be selected in a way that it should be productive for the company so that it can hire the student immediately after the graduation.

[e] MBA students are actively visiting industry.

Practical exposure to the outside world makes students gain much more adaptive and problem solving skills. Industrial visits will be organized for the students every semester to different sectors. Students are getting involved with companies in different ways which makes their career path easy and successful.

All of this is successful because when it comes to Innovative teaching method, SVIT provides an equal prominence to both digital engineering and management students. From the academics to placement, each activity involves all SVIT students and all different streams of students get equal exposure from each other in their area of interest benefiting both MBA students because of the Engineering presence and the Engineering students because of the MBA presence in an environment of digital transformation and digital empowerment of students.

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