

A Review of the Post Graduate Programme
Curriculum at IIM Bangalore

By

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Abstract:

The paper presents a new approach for comparing the curriculum of a business school with the curricula of a set of bench marked schools. A novel method of comparing the core curricula of any school with a set of bench marked schools is first discussed. This algorithm is used to compare the core curriculum of IIM-B with the core curricula of 14 top management schools. A separate methodology for comparing the elective offerings is then developed and used for positioning IIM-B against the 14 schools in terms of elective offerings. These core and elective positions are used to provide direction for change in the core and elective offerings of IIM-B to move it closer to the top schools.

1.The MBA Curriculum and the Business World

The purpose of MBA education programmes offered by business schools across the globe is to provide their students with the knowledge and skills required to function in the business world. At a fundamental level business problems can be viewed as "complex or wicked" problems. Explicit knowledge of basic disciplines has to be combined with the tacit knowledge that comes from practice. The blurring of the boundaries between causes and effects and the operation of multiple positive and negative feedback loops are typical of such problems. It is also very difficult to separate out the essential elements of "the problem" from the noise in the system.

Learning in such situations therefore becomes closely coupled with inferences drawn from common patterns observed across a number of real life illustrations. This is the major reason why the use of cases and the case method has become a common feature in the curricula of top business schools. These pattern recognition or synthesis skills have to be coupled with hard quantitative understanding of the basic disciplines of management like statistics, accounting, individual and group behaviour and economics. This has then to be coupled with major business functions like Operations, Marketing, Finance, Human Resources Management and Strategy. Additional complexity is introduced into the curriculum by the need to factor in the human dimension both at the individual and organizational level. Most management schools also try to integrate the individual aspirations and goals of their students into the curricula by providing inputs in the softer skills like leadership, team building and negotiations. Pressures from key global recruiters who want "instant ready to work" global managers capable of functioning anywhere in the world and the ranking of business schools by the media bring in other dimensions that have an impact on an already diverse and intense work load and curriculum. Management school curricula reflect this complexity in the range of subjects and disciplines they cover and in the way these subjects are taught.

Top business schools respond to these pulls and pressures by tailoring their programmes to cover various kinds of learning. Learning by teaching (lectures, case discussions), learning by doing (projects as part of courses and real life projects with industry) and learning by experiencing (workshops, international study projects) are common elements of top business school curricula.

Schools divide their curriculum into two parts - a core part and a set of electives. All students take the core part of the curriculum. Students are also offered a set of electives from which they can pick a menu depending on their interests. Schools also specify a minimum number of credits based on the number of class contact hours for graduation. They differentiate themselves from each other not only on the basis of their core offerings but also through the set of electives that they offer to the students. All top schools through their core and elective offerings provide students with the knowledge and skills required to suit a generic general management function that can be used in a wide variety of business settings. Some schools combine this "General Management focus" with more specific specializations in the major functional areas of management like finance, marketing, strategy, operations and Human Relations Management. Still other schools, especially the bigger ones, offer additional specialization catering to specific sections of the business world by offering

concentrations in areas like Entrepreneurship, Real Estate Management, Information Technology, Biotechnology, Health Management etc.

2.Managing Curriculum Change

Schools cope with the changes forced on them by periodically reviewing the curriculum to bring about appropriate changes. New research and management practice are often the major drivers of such changes. More recently there is concern among the top business schools that rankings put out by the "popular press" are forcing schools to change in response to the whims and fancies of a not so rigorous ranking methodology adopted by the media. According to this view such forced short-term responses may have an adverse impact on the quality of MBA education.

The normal practice to bring about change is to appoint a curriculum review committee comprising a set of faculty. While committees may seek views of fellow faculty members, recruiter views, talk to alumni etc. a major input into the review is a comparison of the school's curriculum with the curricula of a set of benchmarked schools on a school-by-school basis. Based on such comparisons certain conclusions are drawn. While it is easy to compare a pair of schools it is quite difficult to precisely position a school with respect to the set of benchmarked schools. Questions about the relevance of the benchmark or student opinions or recruiters views about the relevance of change can add to the problems of the review process by reopening the basic assumptions that went into the review. Debates within MBA faculty bodies tend to be elaborate, acrimonious, and not clearly anchored on objective criteria. The recommendations are also difficult to communicate to faculty, who carry with them their own biases with respect to any kind of change. Consequently, strategic insights drawn from such an analysis are difficult to implement. Since the process of changing curricula in business schools is largely political, problems of interpretation of the curriculum position of a school vis a vis other schools tend to complicate an already complex process of managing change. If some part of such benchmarking exercises can be made more objective it may be easier for many schools to manage curricula change.

The authors of this article were fortunate (or unfortunate) enough to be members of a curriculum review committee at one of the leading business schools in India – the Indian Institute of Management Bangalore. In the process of working on this committee we believe that we have an approach to curriculum review that provides a more objective appraisal of the curriculum position of a school with respect to a set of benchmarked schools. The advantage or novelty in our approach is that not only does it enable the concerned school to benchmark against any chosen school but it also provides us a clear picture of the position of the school vis a vis the benchmarked set of schools. If during discussions it emerges that some other school would be a preferred benchmark it is fairly easy to map this new benchmark on to the curriculum map of the school. Though the approach is somewhat generic and can be applied to a number of situations covering the business domain we believe that the issues of comparing and benchmarking business schools in India is sufficiently important for us to share these findings with a larger audience. As we will see the process of benchmarking the core curricula of top Indian schools like IIMB with the top schools in the world throws up a number of issues related to managing change especially

curriculum change. Some of these as they relate to a few of the top Indian schools will also be covered in this paper.

3.Core Curriculum Analysis: Concepts, Approach and Methodology

In principle school curricula differ from each other in multiple dimensions such as subject offerings, the number of credits offered in each subject, the contents of the course, the teaching methods etc. While all these dimensions may be relevant the surfeit of information that such analysis brings often "hides the wood in looking at the trees." Determining the direction of change becomes extremely difficult in such situations. In related work Segev has tried to capture strategic positions of schools in terms of core and elective curricula using the various subjects offered by the schools as the key differentiator. His methodology and the resultant clustering of schools while mathematically elegant cannot be easily understood or interpreted by people wanting to implement curriculum change. If one can capture key measures of differences between a school and a set of benchmark schools in an easy-to-understand intuitive way and use this aggregated information to first position schools, it may become easier to determine the benchmark we want to aim for and the direction of change. We can then use the other dimensions such as subjects, credits, course content and pedagogy to fine tune our findings and carry the analysis to its logical end.

If we follow the above line of thinking, we can look at similarities and differences in the core curricula between a school like IIMB and a comparison school like Wharton as being made of the following components:

- Subjects, courses and credits that are common to both IIMB and the comparison school.
- Subjects, courses and credits that are offered only by IIMB.
- Subjects, courses and credits that are offered only by the comparison school.
- Subjects, courses and credits that are not offered by either school. Obviously these will not matter if our comparison is between IIMB and any one school.

Using the above categorization IIMB core curricula can be compared with the core curricula of any other school along the dimensions of "common subjects and credits", "IIMB unique subjects and credits" and "comparison school unique subjects and credits". This approach enables the transformation of an "n" dimensional comparison problem into a more manageable and more intuitive 3 dimensional comparison problem. Once IIMB and the benchmarked set of schools are positioned with respect to IIMB on the above basis we can look at the differences between IIMB and the set of benchmarked schools to determine the directions of change. Once the direction of change is determined more micro-level data from the set of benchmarked schools can be used to look at finer issues of structure, content, pedagogy etc. This was what the curriculum review committee did at IIMB.

In the review exercise carried out for IIMB we picked 14 business schools to serve as the benchmark set. The schools picked were Harvard, Wharton, Stanford, Chicago, Kellogg, MIT, Duke, Berkeley, Michigan, Columbia, Tuck, Rochester, CMU and

TABLE 1.
CORE CURRICULUM SUBJECT COVERAGE

School	OR	Statistics	Finance	Fin /ManAc	Macro	Micro	Marketing	OB	Opns	MIS	Strategy	Intl Mgt	HRM	Law	Oth. Env	Mgt.Com	Ethics	Others	Total
IIMB	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	16
Harvard	0	0	1	1	1	0	1	1	1	0	1	0	0	0	1	0	1	3	12
Wharton	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	0	15
Stanford	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	1	0	13
Chicago	0	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	0	10
Kellogg	1	1	1	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0	9
MIT	1	1	1	1	1	0	1	0	1	1	1	0	1	0	0	1	0	1	12
Duke	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	12
Berkley	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	0	11
Michigan	0	1	1	1	0	1	1	1	1	0	1	1	0	1	0	1	1	1	13
Columbia	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	10
Tuck	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	1	0	1	13
Rochester	0	1	1	1	0	1	1	0	1	1	0	0	0	0	0	1	0	1	9
CMU	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	1	0	1	13
UCLA	0	1	1	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0	8
IIMA	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	15
IIMC	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	0	1	3	17

Code: OR – Operations Research, Stat – Statistics, Fin – Finance, Acc – Accounting, Macro – Macroeconomics, Micro – Microeconomics, Mktg – Marketing, OB – Organisational Behaviour, Opns – Operations, MIS – Management Information Systems, Intl. Mgt. International Management, HRM – Human Resources Management, Law – Law, Mgt. Com. – Management Communications, Ethics – Ethics, Other Env. – Other Environment, Others – Subjects not covered under any of the previous categories.

TABLE 2.
CORE CURRICULUM CREDIT COVERAGE

School	OR	Statistics	Finance	Fin/ManAc	Macro	Micro	Marketing	OB	Opns	MIS	Strategy	Intl Mgt	HRM	Law	Oth. Env	Mgt.Com	Ethics	Others	Total
IIMB	2	3	4	4	3	3	3	5	4	3	3	0	3	2	2	2	0	2	48
Harvard	0	0	8	4	4	0	4	4	4	0	4	0	0	0	4	0	1	8	45
Wharton	2	2	4	6	4	2	4	4	4	0	2	2	0	2	1	1	1	0	41
Stanford	3	3	3	6	0	3	3	6	3	3	3	3	3	0	0	0	1	1	44
Chicago	3	3	3	6	3	3	3	6	3	0	3	0	0	0	3	0	0	0	39
Kellog	3	3	3	3	0	3	3	3	3	0	3	0	0	0	0	0	0	0	27
MIT	1.5	1.5	3	3	3	0	3	0	3	3	3	0	3	0	0	0	0	3	30
Duke	2.5	2.5	2.5	5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	0	0	3	1	1.5	30.50
Berkley	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	0	0	0	0	1	1	0	24.50
Michigan	0	2	4	6	0	4	4	2	2	0	2	2	0	1	0	1	1	10	41
Columbia	2	2	4	6	2	4	4	4	4	0	2	0	0	0	0	0	0	0	34
Tuck	5	3	5	3	2	3	3	3	3	0	3	0	0	0	3	1	0	5	42
Rochester	0	4	3	7	0	4	3	0	3	4	0	0	0	0	0	3	0	3	34
CMU	5	5	2.5	5	2.5	2.5	2.5	2.5	2.5	0	2.5	0	0	0	2.5	2.5	0	5	42.50
UCLA	0	3	3	3	0	3	3	3	3	0	3	0	0	0	0	0	0	0	24
IIMA	2.25	4.5	6	6	6	3	6	6	4.5	4.5	4.5	0	3	3	0	6	0	0	65.25
IIMC	3	6	3	6	6	3	3	6	3	0	3	0	3	3	6	0	1.5	9	64.50

Code: OR - Operations Research, Stat - Statistics, Fin - Finance, Acc - Accounting, Macro - Macroeconomics, Micro - Microeconomics, Mktg - Marketing, OB - Organisational Behaviour, Opns - Operations, MIS - Management Information Systems, Intl. Mgt. International Management, HRM - Human Resources Management, Law - Law, Mgt. Com. - Management Communications, Ethics - Ethics, Other Env. - Other Environment, Others - Subjects not covered under any of the previous categories.

UCLA. The choice of this sample was based on the fact that in all international business school surveys carried out in the last few years these schools have been consistently ranked as the top business schools. Some of the review committee members who had spent time in some of these schools also felt that these schools would be the ones to pick for a benchmarking exercise. We also decided to include IIMA and IIMC in our analysis though the benchmarking exercise for IIMB was carried out with respect to the foreign schools only. This was not only for purposes of comparison but also to see whether there were common features shared by the top Indian business schools. The idea was also to see if it is possible to provide a reasonable explanation for the common traits seen in the Indian business schools. We make inferences on the positions of IIMA and IIMC in a later section of the paper to reinforce some of the findings related to the positions of Indian schools.

Tables 1 and 2 constitute the basic database used in our benchmarking exercise for looking at the core curriculum. Table 1 is used to look at commonalities and differences between IIMB and the benchmark schools in terms of subjects covered in the core. An entry of "1" indicates coverage of a subject and an entry of "0" indicates non-coverage. The number of courses offered in a particular subject area or the number of credits are not reflected in this Table. Thus if there are 2 courses in Finance with a total of 6 credits it will still be entered as a 1. Table 2 provides the total credits in each subject / area. In both tables there is a category "Others" These are courses that are somewhat unique to a particular school which do not fall into any of the standard subjects / areas offered by schools. One could expand the list of subjects in the Table to list each one of them separately. However to make the data analysis and table sizes more manageable they have all been grouped together under the category "Others". Since the details of what constitutes "others" are available we can break up entries under "Others" easily into "Common courses and credits" "IIMB unique courses and credits" and "Comparison school unique courses and credits". The core curricula of all schools were scrutinized and the offerings grouped into one of the subject categories. All credits were normalized to IIMB using the norm 33 class contact hours = 3 credits. A "typical school" is defined as a school that has all subjects offered by at least 50% of the benchmark schools. The credits for the subject offerings of a "typical school" are based on the average credits offered in these subjects by the benchmark schools. These Tables will be the basis for much of the analysis that follows.

4. Subject Based Position of IIMB vis a vis Other Schools – core curriculum

We can from the basic data of Table 1 construct a sub table that breaks up the total subject offerings of IIMB and the comparison school into the three dimensions of "subject common to both schools", "IIMB unique subjects" and "comparison school unique subjects" Table 3 provides this data for all the schools with respect to IIMB. Using these 3 dimensions for each school we can then derive values for the differences between IIMB and the comparison school. Since by definition the common courses between IIMB and the comparison school are the same, they do not make any contribution to the differences between these schools and have a value "0". Differences between IIMB and the comparison school are therefore only because of "IIMB unique subjects" and "the comparison school unique subjects." The 3 dimensions of looking at differences in subject coverage between IIMB and the comparison school are converted into 2 dimensions. The origin of this 2 dimensional

plane is the differences between IIMB and IIMB, which will have the co-ordinates 0, 0. The two axes are the "IIMB unique" axis and the "comparison school unique" axis. The distance of the comparison school from the origin (IIMB) is a measure of differences between IIMB and the comparison school in "subject coverage" and can be easily estimated from the values along the 2 axes. These derived values of differences are also shown for the schools in Table 3. Figure 1 shows the distance

TABLE 3
COMMON and NON-COMMON PART OF CORE CURRICULUM
(NUMBER OF COURSES)

Schools	No. of courses	Common courses	IIM B unique	Other unique	Differences in:			Distance calculation	
					Schools	Common	IIMB-uniq	Oth-uniq	School radial
IIMB	16	16	0	0	IIMB	0	0	0	IIMB 0.00
Harvard	12	8	8	4	Harvard	0	8	4	Harvard 8.94
Wharton	15	13	3	2	Wharton	0	3	2	Wharton 3.61
Stanford	13	11	5	2	Stanford	0	5	2	Stanford 5.39
Chicago	10	10	6	0	Chicago	0	6	0	Chicago 6.00
Kellog	9	9	7	0	Kellog	0	7	0	Kellog 7.00
MIT	12	11	5	1	MIT	0	5	1	MIT 5.10
Duke	12	10	6	2	Duke	0	6	2	Duke 6.32
Berkley	11	10	6	1	Berkley	0	6	1	Berkley 6.08
Michigan	13	10	5	3	Michigan	0	5	3	Michigan 5.83
Columbia	10	10	6	0	Columbia	0	6	0	Columbia 6.00
Tuck	13	12	4	1	Tuck	0	4	1	Tuck 4.12
Rochester	9	8	8	1	Rochester	0	8	1	Rochester 8.06
CMU	13	12	4	1	CMU	0	4	1	CMU 4.12
UCLA	8	8	8	0	UCLA	0	8	0	UCLA 8.00
IIMA	15	15	1	0	IIMA	0	1	0	IIMA 1.00
IIMC	17	14	2	3	IIMC	0	2	3	IIMC 3.61
BM	12	11	5	1	BM	0	5	1	BM 5.10

of various comparison schools from IIMB in increasing order. To understand whether these differences are driven by "subject coverage unique to IIMB" or by "subject coverage unique to the comparison school", these 2 values are also plotted in a scatter plot shown in Figure 2. We can see almost immediately that the differences between IIMB and the benchmark set of schools are largely driven by the "IIMB unique subjects" and not so much by the "comparison school subjects". We can make the following inferences from this fairly simple and obvious analysis of the raw data of Table 1.

- IIM A is very similar to IIM B. IIMC is also not very different.
- Wharton is the closest top business school to IIMB closely followed by Carnegie Mellon University and Tuck.
- UCLA, Harvard and Rochester are the schools farthest from IIMB in terms of subject offerings.

- The major driver for the differences between IIM B and top business schools are the “IIM B unique subject offerings” and not the “comparison school unique subject offerings”.

Figure 1

Positioning based on course offerings (radial distance measure)

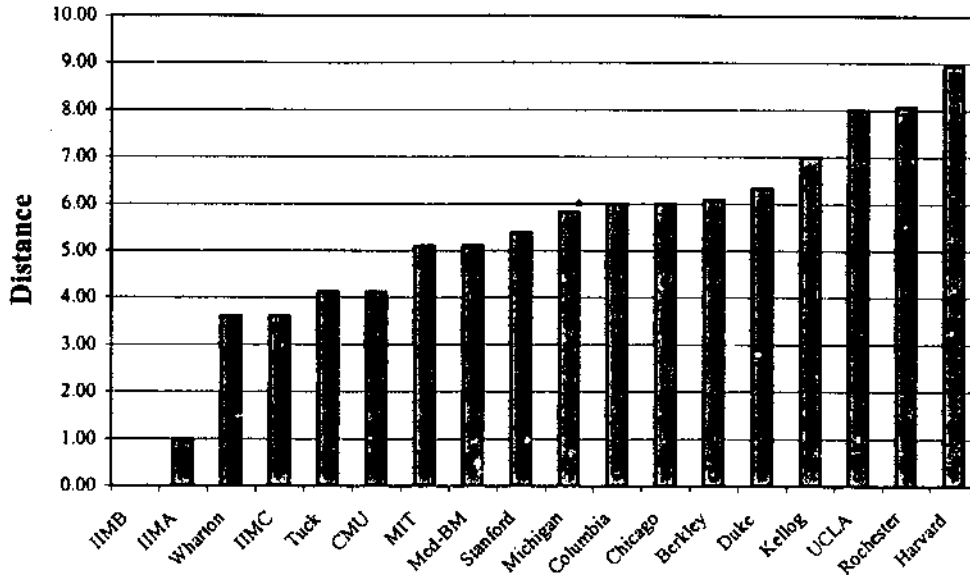
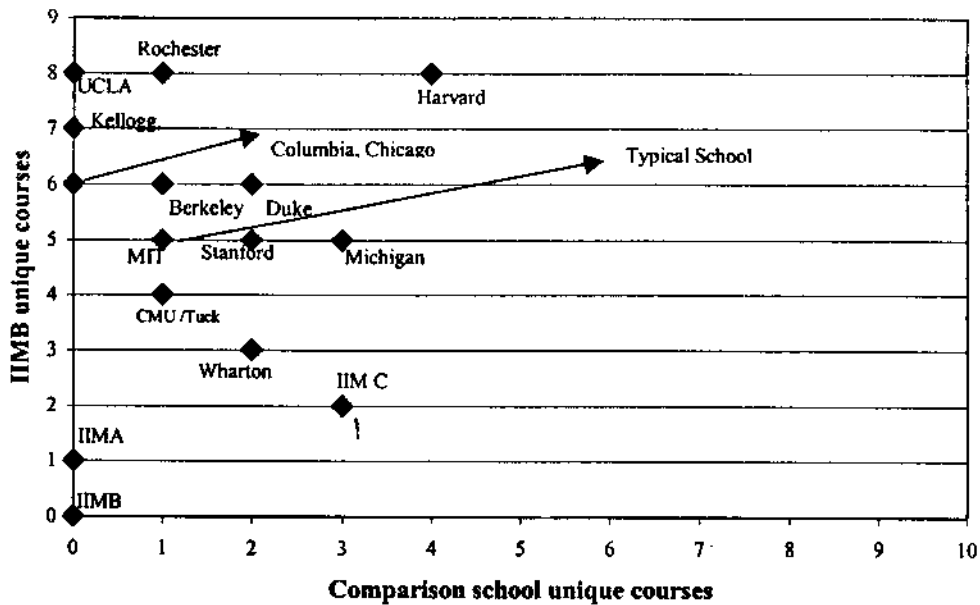


Figure 2

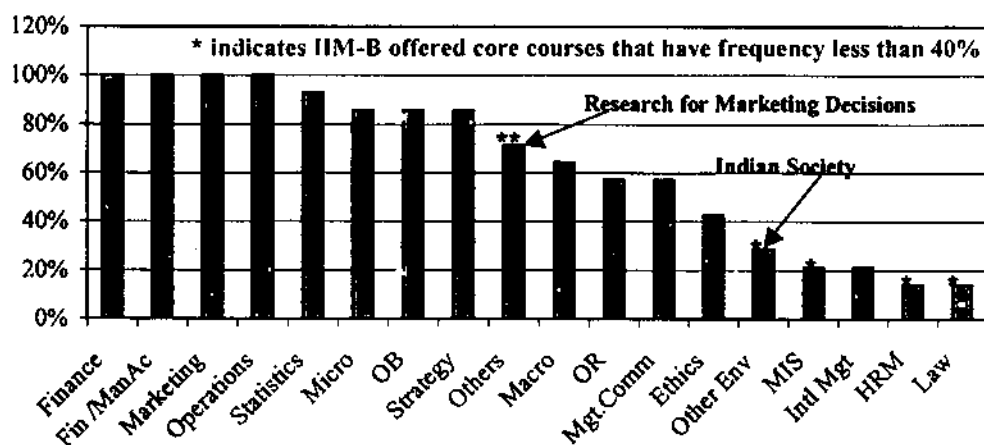
Positioning chart based on subject coverage



What are the "IIMB unique courses" that contribute to the differences between IIMB and the benchmark schools? Figure 3, which provides information on the percentage of the benchmark schools offering a particular core subject, gives us some indication.

Figure 3

Frequency of usage of core courses



The major source of difference between IIM B and the benchmark top US schools arise from the following subjects:

- Human Resources Management (HRM)
- Law
- Research for Marketing Decisions (RMD) (categorized under "Others")
- Indian Society (categorized under "Other environment")
- Management Information Systems (MIS)

It would appear from this analysis that just by dropping the above subjects IIMB could easily become like a top notch US business school. Obviously other factors including the depth of coverage in terms of the number and duration of classes, the course contents, the way the topics are covered, their sequencing, the kinds of cases used, the extent to which faculty bring to life the complexity of the business world within the campus environment, will all contribute to the differences between schools. Indian schools also operate in a business environment that is different. Therefore some India centric subject coverage may also be needed. While it is difficult to quantify many of these differences, the extent of subject coverage in terms of class contact hours or credits can be brought into our benchmarking algorithm of comparing IIMB with some of the top US schools. Let us look at how this can be done.

5. Incorporating Core Credits into the Analysis

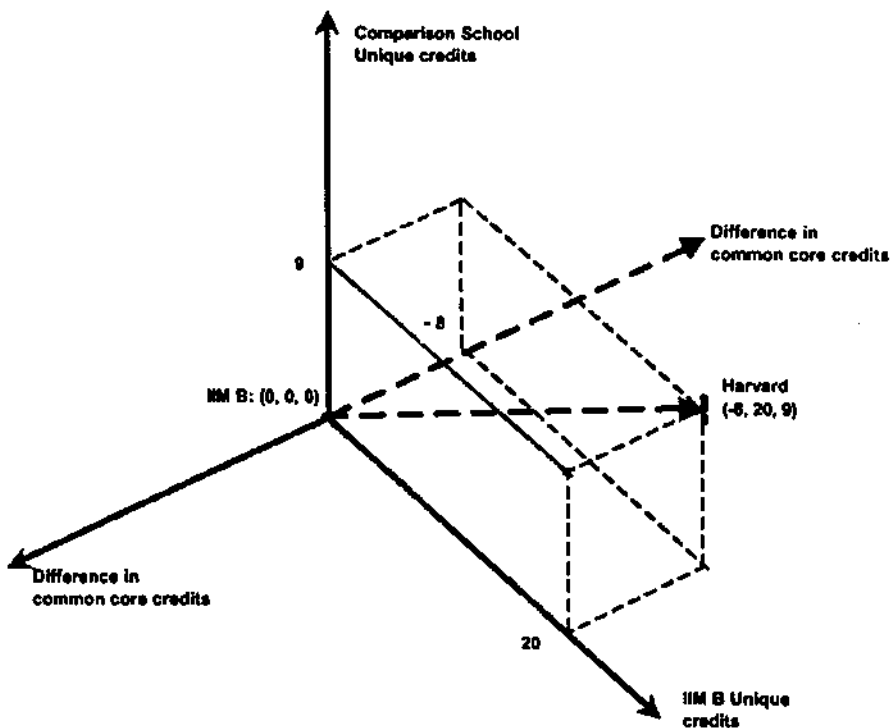
Using the data of Table 2 which provides the credits (class contact hours) that each school offers we can construct a table of differences just as we did in the case of subject offerings

TABLE 4.
COMMON and NON-COMMON PART OF CORE CURRICULUM (NUMBER OF COURSE CREDITS)

	No. of credits	IIM B common	Common credits	IIM B unique	Other unique	Differences in:				Distance calculation				
						School	Common	IIMB-uniq	Oth-uniq	School	radial	theta (t)	x=rcost(t)	y=rsin(t)
IIMB	48	48	48	0	0	IIMB	0	0	0	IIMB	0.00	0.00	0.00	0.00
Harvard	45	28	36	20	9	Harvard	-8	20	9	Harvard	23.35	110.04	-8.00	21.93
Wharton	41	40	38	8	3	Wharton	2	8	3	Wharton	8.77	76.83	2.00	8.54
Stanford	44	37	39	11	5	Stanford	-2	11	5	Stanford	12.25	99.40	-2.00	12.08
Chicago	39	36	39	12	0	Chicago	-3	12	0	Chicago	12.37	104.04	-3.00	12.00
Kellog	27	31	27	17	0	Kellog	4	17	0	Kellog	17.46	76.76	4.00	17.00
MIT	30	32	27	16	3	MIT	5	16	3	MIT	17.03	72.93	5.00	16.28
Duke	30.5	33	28	15	2.5	Duke	5	15	2.5	Duke	16.01	71.80	5.00	15.21
Berkley	24.5	34	23.5	14	1	Berkley	10.5	14	1	Berkley	17.53	53.20	10.50	14.04
Michigan	41	33	28	15	13	Michigan	5	15	13	Michigan	20.47	75.86	5.00	19.85
Columbia	34	34	34	14	0	Columbia	0	14	0	Columbia	14.00	90.00	0.00	14.00
Tuck	42	38	37	10	5	Tuck	1	10	5	Tuck	11.22	84.89	1.00	11.18
Rochester	34	26	31	22	3	Rochester	-5	22	3	Rochester	22.76	102.69	-5.00	22.20
CMU	42.5	38	37.5	10	5	CMU	0.5	10	5	CMU	11.19	87.44	0.50	11.18
UCLA	24	25	24	23	0	UCLA	1	23	0	UCLA	23.02	87.51	1.00	23.00
IIMA	65.25	44	65.25	4	0	IIMA	-21.25	4	0	IIMA	21.62	169.34	-21.25	4.00
IIMC	64.5	43	57	5	7.5	IIMC	-14	5	7.5	IIMC	16.65	147.22	-14.00	9.01
BM	38.66	36	34.10	12	4.56	BM	1.90	12	4.56	BM	12.98	81.58	1.90	12.84

There is one crucial difference however. Unlike in the case of subject offerings where the difference arising from “common subjects” was zero, the differences between IIMB and the comparison school in “common-course credits” need not be zero. A subject like Finance which forms a part of the core in most business schools may have 8 credits or 88 student contact hours at Harvard and only 44 student contact hours or 4 credits at IIMB. Obviously Harvard offers more credits (depth) than IIMB in this course and though the course or subject is common (zero difference) there are differences in depth of coverage (4 credits). These differences in “common course credits” along with “IIMB unique course credits” and “comparison school unique course credits” will all contribute to the total difference between IIMB and the comparison schools. The positioning of schools in the curriculum-space will now have 3 dimensions – “differences in common course credits between IIMB and the comparison school”, “differences in IIMB unique course credits” and differences in “comparison school unique course credits”. Table 4 constructs such a table of differences between IIMB and the benchmark schools. The origin for the 3-D representation is IIMB whose difference with IIMB by definition has the co-ordinates (0,0,0). Figure 4 provides an indication of how these differences look on a 3-D plot for one school Harvard with respect to IIMB

Figure 4
3D representation of overall differences between comparison school and IIM B



It is difficult to provide a 3D picture of school positions relative to IIMB that can be easily understood and interpreted pictorially. So the 3 dimensions represented in table 4 and shown conceptually in Figure 4 are translated into a 2 dimensional picture. This is done by converting the 3 D data into two dimensions that measure differences – an X axis that measures “Differences in common course credits” and a Y axis that

measures differences in "Non-common course credits". This Y axis can be further broken up into two components "IIMB unique course credits" and "comparison school unique course credits". All this information is useful in positioning schools in terms of differences between IIMB and the comparison school. Figure 5 positions the schools in the curriculum space in terms of "differences in common course credits" and differences in "non-common course credits".

Figure 5

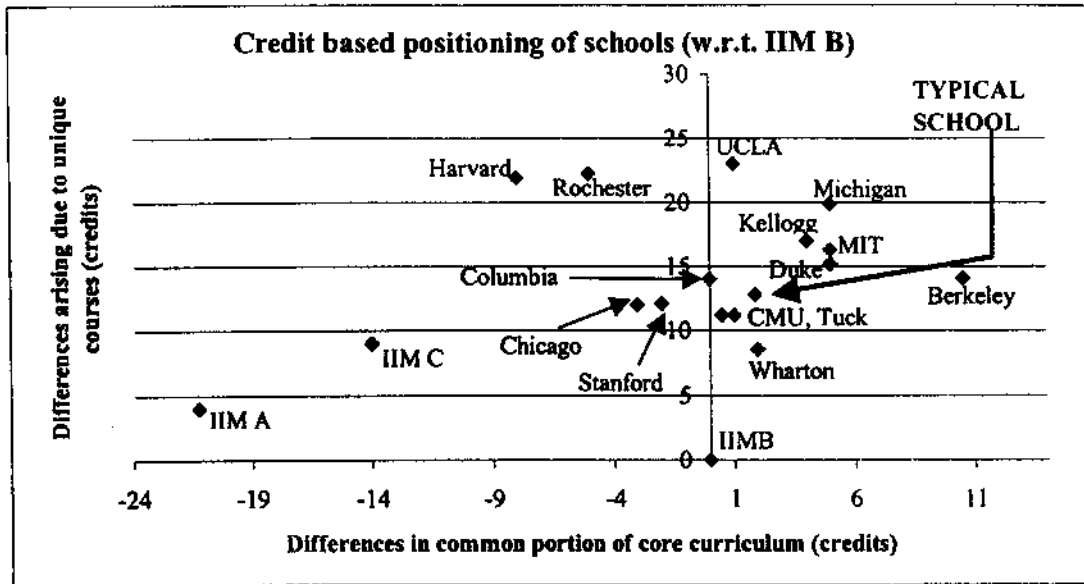


Table 5 provides details of the break up of the "non-common course credits" in terms of "IIMB unique course credits" and "comparison school unique course credits."

TABLE 5.
BREAKUP OF NON-COMMON CREDITS

School	$y = r \sin(t)$	IIMB- unique	Other-unique
IIMB	0	0	0
Harvard	21.93	20	9
Wharton	8.54	8	3
Stanford	12.08	11	5
Chicago	12.00	12	0
Kellogg	17.00	17	0
MIT	16.28	16	3
Duke	15.21	15	2.5
Berkley	14.04	14	1
Michigan	19.85	15	13
Columbia	14.00	14	0
Tuck	11.18	10	5
Rochester	22.20	22	3
CMU	11.18	10	5

School	$y=r\sin(t)$	IIMB- unique	Other-unique
UCLA	23.00	23	0
IIMA	4.00	4	0
IIMC	9.01	5	7.5
Med-BM	12.84	12	4.56

With the insertion of course credits, positioning seems to have altered:

- Wharton, Tuck, and CMU continue to be close to IIM B with Chicago and Stanford not being too far away.
- Harvard, Rochester, UCLA, and Michigan are farthest away.
- Harvard, Rochester, Chicago, and Stanford offer more credits than IIMB in courses that are common. Other schools offer lesser credits in common courses. Columbia offers the same number of credits as IIMB in courses that are common to both schools.
- IIM B offers many course-credits similar to other benchmark schools. (Common part of the core curriculum). IIMB also offers many courses that are different a trend it shares with both IIMA and IIMC.
- IIM B unique courses rather than comparison school unique courses drive the differences between IIMB and the benchmarked schools in the non-common part of the core curriculum.
- IIM A and IIM C are positioned far to the left of IIMB indicating that they have more credits on common courses they share with IIMB. From Figure 1, which looks at subject coverage, we know that both IIMA and IIMC offer core courses that are quite similar to that of IIMB. We can see now from Figure 5 that both IIMA and IIMC offer significantly more credits in the core common courses. The fact that IIMA is closely aligned to the X-axis and IIMC is a little farther away also suggests that they are very similar to IIMB in course or subject offerings. Does this mean that they offer greater depth than say IIMB and the top US schools? Or does this mean that they have not chosen to change toward integrating subjects and courses in the core to make them more contemporary and relevant? Table 6 provides details on the differences between the 3 IIMs and the set of benchmark schools. From the available evidence it would appear that both IIMA and IIMC are even farther away from the benchmark schools in course credit space than IIMB.

The implication of this analysis is that IIM B offers many course-credits that are not offered by other schools. These course credits are Human Resources Management (3 credits), Law (2 credits), Research for Marketing Decisions (2 credits), Indian Society (2 credits) and Management Information Systems (3 credits)

6. An Algorithm for Navigation in the Core Credit-Curriculum Space

We can use the IIMB course-credit position chart and the associated tables to decide upon a strategy for a school like IIMB for navigating through the credit curriculum space of any set of benchmarked schools. We can also use this to decide on an IIMB strategy. For e.g. we can this chart and the database to answer specific questions like:

- If IIMB wishes to be like Wharton, what should it do?
- If IIMB wishes to be like Harvard, what should it do?
- How can IIMB reach the position of a TYPICAL SCHOOL?

Wharton and IIM B:

From Tables 2 and 4 Wharton and IIM B offer 13 common core courses. 3 courses are unique to IIM B. These are Management Information Systems (MIS), Human Relations Management (HRM), & Research for Marketing Decisions (RMD). Wharton offers 2 unique courses in Ethics and International Management (IM).

Wharton has a total of 41 credits and IIM B a total of 48 credits. For the common core courses, Wharton offers 38 credits and IIM B 40 credits. The IIM B unique credits are 8 and the Wharton unique credits are 3.

For IIMB to become more like Wharton, it can drop the three IIM B unique courses (MIS, HRM, and RMD). It can then (maybe) reduce the number of credits in some common courses. It can then (maybe) add courses on Ethics and IM.

Harvard and IIM B:

Harvard and IIM B offer 8 common core courses. 8 courses are unique to IIM B (OR, Statistics, Microeconomics, MIS, HRM, Law, Management Communications & RMD). Harvard offers 3 unique courses (Entrepreneurial Management, Negotiations, and Ethics)

Harvard offers a total of 45 credits and IIM B a total of 48 credits. For the common core courses, Harvard offers 36 credits and IIM B 28 credits. The IIM B unique credits are 20 and the Harvard unique credits are 9.

Using this information, for IIMB to become more like Harvard, it can drop the eight IIM B unique courses. It can then (maybe) increase the number of credits in some common courses. It can then add courses on Ethics, Entrepreneurial Management and Negotiations.

Typical School and IIM B

The typical school offers 1.90 fewer course-credits than IIM B in the common part of the core curriculum. The typical school offers 4.56 unique course-credits. IIM B offers 12 IIMB unique course-credits. To be more like a TYPICAL SCHOOL, IIMB should reduce IIM B unique course-credits

It is clear that it is easier for IIMB to reach a position close to Wharton or one of the nearer schools than to reach the position of a school like Harvard. With some effort IIMB can reach the position of a "typical school".

7. Observations on the IIMB core curriculum

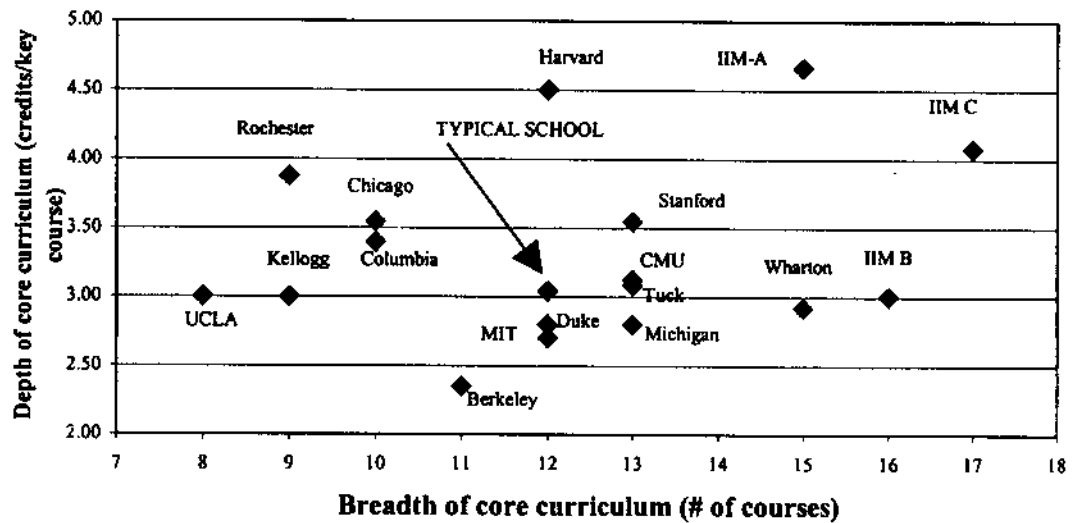
Figure 6 provides an overall picture of the depth versus breadth coverage of the various business schools. Figure 7 provides details on additional IIMB unique course credits offered in comparison to the various other schools and the benchmarked median school. We can make the following observations:

- IIMB offers 48 credits in the core. This is higher than all the benchmark US schools. IIMA and IIMC however offer even more credits in the core than IIMB. IIM B offers almost all the core subjects in our sample. (16 out of 18)

IIM B also offers many core subjects that the benchmark schools do not offer. IIMA offers one less course than IIMB and IIMC offers one more course than IIMB. IIMA and IIMC in general seem to offer many more credits in the common part of the curricula with respect to the benchmark schools.

Figure 6

Comparison of Core Curricula of Top Business Schools



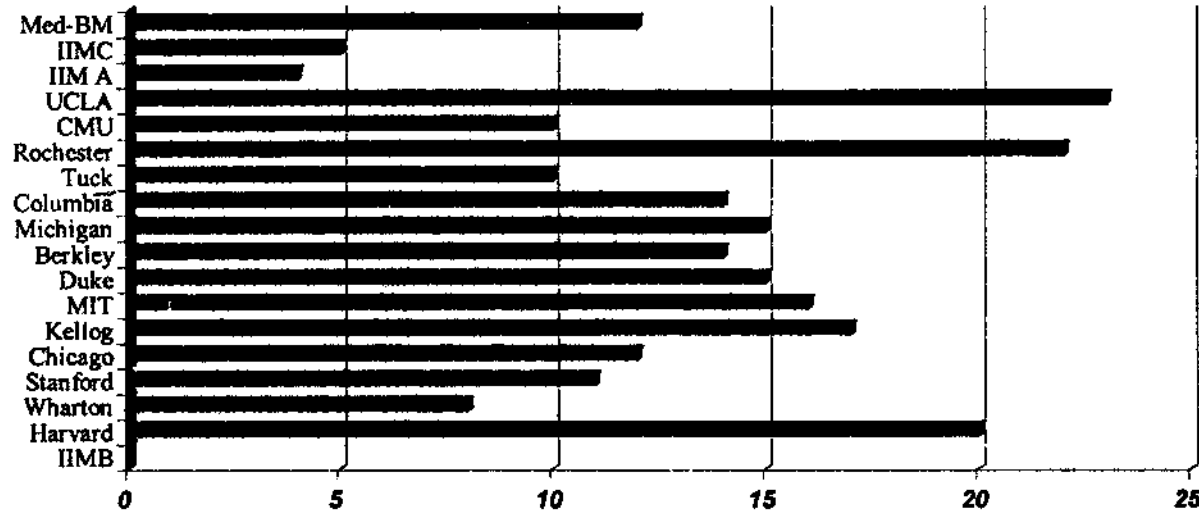
The good news is that most of the difference is due to IIM B – unique (under IIMB control) as opposed to Other – unique (which is not under IIMB control).

One would expect IIM B (maybe all the IIMs) to be different because of the specific Indian context in which it functions. Since IIMB and the other IIMs all take students from various backgrounds and with less work experience than the benchmark US schools arguments are often made out by some faculty that Indian MBA students require enhanced inputs in some areas especially those related to personal development. Does the IIMB core curricula really reflect this Indian centricity? Or do these differences stem from the fact that IIMB has not made the necessary changes in the curricula to keep pace with the changes in the business environment. Fortunately the available data allows us to make some inferences.

As mentioned earlier the “IIM B unique” courses are: Research for Marketing Decisions (not offered by any US benchmark school in the core), Human Relations Management (offered only by 2 US schools out of 14), Law (offered only by 2 of the 14 benchmark schools), and Management Information Systems offered by 3 of the benchmark schools in 2002. There is also a course on Indian Society (listed under the subject category “Other Environment”), offered at IIMB. 21% of the benchmark schools offer courses that cover the social / business environment. Segev (1998) has provided core course information for 1994 for 25 schools. Our sample of 14 US schools is a subset of Segev’s sample. We can look at Segev’s data and data from our sample of 14 schools to understand how business schools have changed their course offerings in the core curriculum with respect to at least two of the courses -HRM and MIS for which data is available.

Figure 7

Additional Core Credits offered at IIM B



	IIMB	Harvard	Wharton	Stanford	Chicago	Kellogg	MIT	Duke	Berkley	Michigan	Columbia	Tuck	Rochester	CMU	UCLA	IIM A	IIMC	Med-BM
Series I	0	20	8	11	12	17	16	15	14	15	14	10	22	10	23	4	5	12

8 schools out of our sample of 14 schools offered MIS in 1994. These were Berkeley, Harvard, Kellogg, Michigan, UCLA, Stanford, MIT, and Rochester. Only 3 schools - Stanford, MIT and Rochester - offered MIS in 2002. As far as HRM is concerned 3 schools offered HRM in 1994 - Chicago, MIT and UCLA. Only 2 schools offered HRM in 2002 (MIT and Stanford). Both IIMB as well as IIMA offer courses on MIS. Stanford is the only school that has added an HRM. One could say for e.g. from the above analysis that HRM and MIS could be dropped. At least in the case of HRM this would not make much sense since managing people is likely to be an important part of any core management curriculum. One could argue in a similar way that in a world of increasing IT focus, core curricula might want to include its impact on businesses in some way. There is obviously a need to go beyond this simplified view of differences and go back to looking at the details of individual courses / areas to look at the implications for positioning IIMB. Such detailed analyses were carried out as a part of the review process by a number of our colleagues. These analyses which are available separately enables one to take a more critical look at the findings that came out of the macro analysis. A more detailed analysis of the Organisational Behaviour / HRM area indicated that many of the top schools were able to integrate various elements offered as 3 separate courses at IIMB (Organisational Behaviour, Organisation Structure Process & Design and Human Resources Management) into a single course and this integration of content rather than elimination of the HRM course accounts for the difference between IIMB and these schools. A similar analysis of the MIS course was carried out. One could infer from this that the traditional MIS course offered by IIMB is being replaced by integrating MIS course content into other functional areas like Operations, Accounting etc. There also seems to be a move on the part of some schools to address the impact of the IT paradigm shift by offering specialized courses in the core. These offerings seem to be different from the MIS offerings at IIMB. These are the reasons for the decrease in the MIS offerings of the benchmarked schools.

Research For Marketing Decisions: None of the 14 benchmarked US schools offered it in 1994 or 2002. It is offered as an elective in marketing in many schools.

Law: No data available in the Segev categorisation. But only 2 of the 14 benchmarked schools Wharton and Michigan offer it as a part of their core curriculum. Both of them include legal studies as a part of their concentration area / major offerings for their 2 year MBA programmes.

Indian Society: There is no information on this or similar courses in the Segev 1994 compilation on the core curricula of the top 25 business management schools. Only Harvard out of the 14 benchmarked schools currently offers a course that is somewhat similar. This course entitled "Government, Society and the International Economy" tries to look at the societal / governmental interconnections for conducting business in an international context. The Indian Society course at IIMB attempts to do something similar in the Indian context.

8. Implications of the analysis of the core curriculum for IIMB

The number of credits in the core that IIMB offers at 48 credits is much higher than the core credits offered by the 14 benchmarked schools. IIMA and IIMC offer similar courses with even higher credits.

IIMB offers courses in 16 of the 18 categories of subjects in the core. This is a much higher number of courses than most benchmarked schools and is among the highest number of courses among all schools. IIMA and IIMC are also very similar in course offerings.

Most of the differences between IIMB and the benchmarked 14 schools are due to "IIMB unique courses". By dropping them IIMB could in principle become similar in course and credit offerings to the 14 benchmarked schools. Once again IIMA and IIMC appear to be very similar to IIMB.

Since the Indian business environment is different one would a priori expect the IIMB courses to reflect some differences due to this specific Indian context. Do the differences really reflect an India centricity?

Based on the analysis we can raise certain issues related to the core curriculum.

The course on "Research for Marketing Decisions" is offered as an elective in most of the benchmarked schools? Should it be a part of the core curriculum at IIMB or should it become an elective?

As we had mentioned earlier many of the 14 benchmarked schools offer an integrated OB / HRM course that are currently offered as 3 courses at IIMB. Should IIMB continue in the current way or should it move towards offering a more integrated offering? The trend seems to be towards offering more integrated courses.

Should the Management Information Systems & Technology (MIST) continue to be offered as a core course either in its current form or with an alternative course design and structure? Should it become an elective?

While the courses on Indian Society and Law are no doubt India centric should they be offered in their current form or should they be re-organised to provide an integrated "Business, Government and Society" focus. There is also a possibility that some or all of them can be offered as electives.

These are some of the possible changes in the structure of some of the major courses being offered in the PGP core curriculum.

9. Comparison of IIMB Core Subject / Area Wise Offerings of Courses and Credits with Other Schools.

Figure 8 provides details of the IIMB credit offerings in the various subjects / areas in comparison with the school that offers the highest number of credits in that subject / area. As we can see except in a few areas like Operations and HRM IIMB offerings are lower. Rather than comparing IIMB with the school that offers the highest number of credits in a particular area / subject, it may be more appropriate to compare IIMB with the median benchmark school. Figure 9 provides details of the differences in credits between IIMB and the median school for the

various subjects and areas covered in the core curriculum. We can see immediately that IIMB is close to the median school in many course subject offerings. Among the core courses we can see that the OB / HRM,

Figure 8

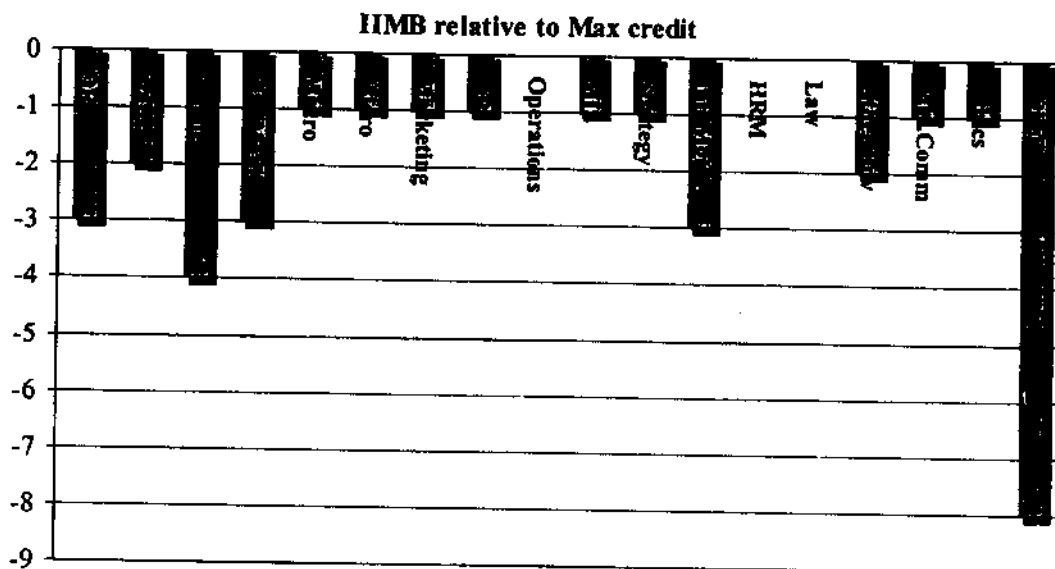
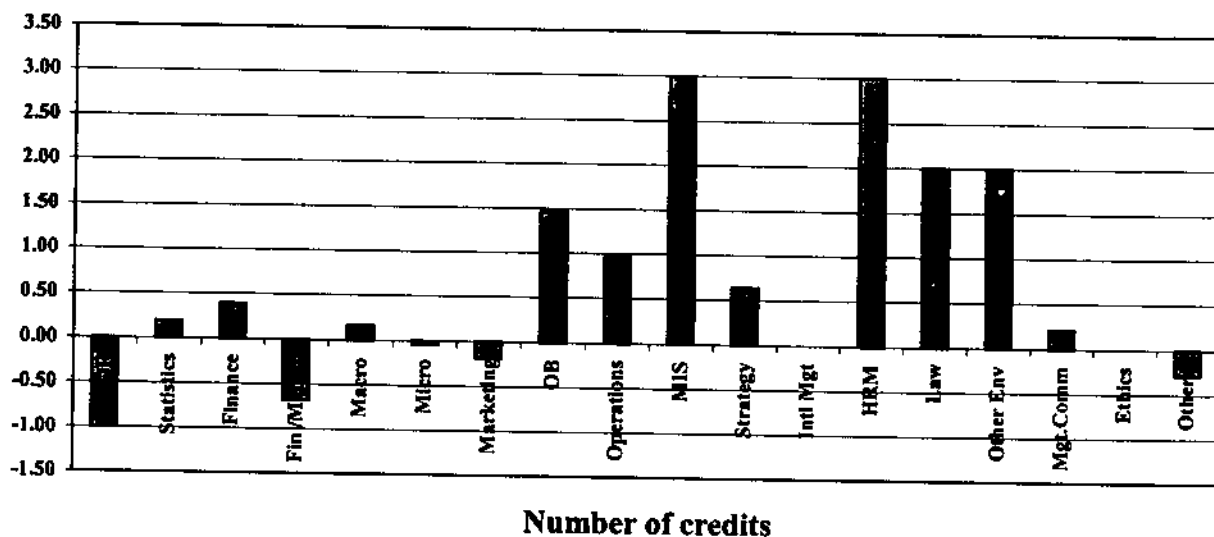


Figure 9

IIM B relative to Median Benchmark school



Operations and Strategy offerings are higher than the median school. IIMB is of course higher than the median school in all courses that it offers but which are not offered by the median school (MIS, Indian Society offered under Other Environment, Law).

IIMB appears to be below the median school in terms of Finance, Accounting and OR course-credit offerings.

We can look at the details of the course offerings of the various schools, compare them with what IIMB is doing and decide on how we can improve course offerings and related credits. The general trends that one can discern from the offerings of the benchmarked schools is a smaller more tightly integrated set of core courses than what IIMB offers. IIMB offers more core courses and more credits distributed over them than the benchmarked schools. A critical look at IIMB core course offerings from this perspective may be needed for IIMB to get a good fix on the direction of change in the core curriculum.

Colleagues in the Review Committee have carried out such an exercise that looks at many of the core course offerings at IIMB and compared it with similar course offerings offered by the benchmarked schools. These analyses of the Operations, Finance, Economics, Indian Society, OB / HRM and Strategy Areas are separately available. The overview position of the core IIMB curriculum in comparison with the 14 benchmark schools can be arrived at based on the kind of analysis presented here. If this is coupled with a detailed comparison of courses and area offerings in terms of content, design and pedagogy with the benchmark schools we can get a good understanding of IIMB's current position and the directions for future change in the core curriculum.

10. ELECTIVE ANALYSIS

For analyzing the elective portion of the IIMB curriculum, we collected raw data (for all benchmark schools and IIMB) on elective courses offered in the programme along with the corresponding credits associated with the course offering. We used the IIMB classification of elective subjects (areas) to classify the benchmark school elective courses. As done for the core curriculum data, we normalized the credit hours of the benchmark school as per IIMB norms. These data are shown in Table 6 (area-wise elective course offerings) and Table 7 (area-wise elective credits).

As can be seen in Table 6, the areas are: Accounting, Economics, Finance, Decision Sciences, HRM & Industrial Relations, IT & Systems, Strategy and International Management, Law, Marketing, Operations Management, Organizations Behavior, Public Policy, Entrepreneurship and Other. "Other" would include all elective offerings that do not fall in any of the previous 13 area categories. We also include a column (the last one) titled "E-prime" to indicate those entrepreneurship electives that are cross-listed in a functional area and the area of Entrepreneurship. For example, Entrepreneurial Finance would be listed both under the area of Finance as well as under the area of Entrepreneurship. The last but one column shows the total number of elective courses offered at each school. A similar approach is used in constructing Table 7. All the data correspond to the year 2002.

From Table 6, we can see that Kellogg (214 electives) Wharton (187 electives), Michigan (182 electives) and Chicago (125 elective credits) lead the list and offer over 100 electives. IIMB offers 68 electives. IIMA offers 43 electives. From Table 7, we can see that the typical benchmark school offers 312 elective credits, whereas IIMB and IIMA offer 195 and 111.3 elective credits respectively. One can see that Wharton (675 elective credits), Kellogg (597 elective credits), Michigan (524 elective credits), Chicago (375 elective credits) and Columbia (362) offer the most number of elective credits. A more intuitive graphical representation is shown in Figure 10 (number of elective courses) and Figure 11 (number of elective credits).

One can conclude that IIMB offers fewer electives than the typical benchmark school. The difference with respect to the typical benchmark across the areas is shown in Figure 12. The shortfalls are in the areas of Accounting, Finance, Strategy & International Management and Organizational Behavior. Note also that the "Other" category is responsible for a significant portion of the difference between IIMB and the typical benchmark school. In the areas of IT and Entrepreneurship, IIMB compares well. Overall, IIMB offerings compare well with a school like Stanford.

Table 6.
Area wise elective course offerings.

School	Core Accounting	Core Economics	Core Finance	Core Decision Sc.	Core HRM & IR	Core IT & sys.	Core Strategy & Int.	Non-core Law	Core Mktg	Core Op. Mgt.	Core OB	Non-core Public Pol.	Non-core Entrepr.	Non-core Other	Total courses	Non-core E-prime
IIMB	3	6	12	5	1	5	7	2	10	8	1	1	4	3	68	0
Harvard	7	4	11	1	3	2	10	1	9	7	5	3	2	10	75	16
Wharton	7	0	23	12	2	8	22	11	18	8	6	8	5	57	187	0
Stanford	6	7	9	1	2	2	6	1	10	5	8	7	6	11	81	5
Chicago	8	15	23	9	4	2	11	3	17	4	10	7	5	7	125	17
Kellog	11	17	30	12	6	0	21	3	21	6	14	14	4	55	214	21
MIT	2	0	8	10	0	3	7	5	4	7	3	0	3	9	61	0
Duke	6	2	11	5	1	0	5	3	10	4	2	1	0	9	59	0
Berkley	7	3	10	2	1	6	11	0	9	7	2	9	2	12	81	1
Michigan	11	4	25	11	4	6	24	12	17	18	13	11	8	18	182	5
Columbia	9	10	15	5	5	1	11	3	10	3	6	5	2	7	92	1
Tuck	5	3	8	4	0	0	8	1	8	5	7	2	3	8	62	1
Rochester	6	2	11	3	1	4	4	4	11	9	1	0	2	6	64	1
CMU	6	3	13	3	3	6	6	2	7	8	6	0	4	12	79	1
UCLA	8	6	13	4	1	4	9	2	12	8	5	1	8	18	99	2
IIM A	1	2	7	4	0	2	2	0	6	3	6	0	1	9	43	0
IIMC																
Average																
Typical BM	7.07	5.43	15.00	5.86	2.36	3.14	11.07	3.64	11.64	7.07	6.29	4.86	3.86	17.07	104.36	

Code: Decision Sc- Decision Science, HRM & IR – Human Resources Management & Industrial Relation, IT & sys- Information Technology & Systems, Strategy & Int- Strategy & International Business, Mktg- Marketing, Op. Mgt- Operations Management, OB – Organisational Behaviour, Public Pol – Public Policy, Entrepr- Entrepreneurship Management, Others – Subjects not covered under any of the previous categories. E-Prime represents specific entrepreneurship dedicated courses offered by entrepreneurship centres outside the entrepreneurship offerings of core functional areas.

Table 7.
Area wise elective credits

School	Accounting	Economics	Finance	Decision Sc.	HRM & IR	IT & sys.	Strategy & Int.	Law	Mktg	Op. Mgt.	OB	Public Pol.	Entrepr.	Other	Total	E-prime
IIMB	9	15	33	13	3	15	21	6	29	24	3	3	12	9	195	0
Harvard	24	16	42	4	12	8	40	4	34	28	20	12	8	36	288	62
Wharton	24	0	90	48	8	28	76	44	52	26	24	30	14	211	675	0
Stanford	18	21	27	3	6	6	18	3	30	15	24	21	18	33	243	15
Chicago	24	45	69	27	12	6	33	9	51	12	30	21	15	21	375	51
Kellog	33	51	81	31.5	16.5	0	61.5	7.5	61.5	18	42	24	10.5	159	597	55.5
MIT	6	0	24	28.5	0	9	16.5	15	12	21	7.5	0	7.5	27	174	0
Duke	15	5	27.5	12.5	2.5	0	12.5	7.5	25	10	5	2.5	0	24.5	149.5	0
Berkley	16	7.5	22.5	5	2.5	16	27	0	21	16.5	5	22	5	28	194	2
Michigan	40	16	62	30	14	20	72	28	52	56	36	32	18	48	524	14
Columbia	32	40	60	20	20	4	44	12	38	12	24	20	8	28	362	4
Tuck	12.5	17.5	20	8.75	0	0	16.25	2.5	20	8.75	10	2.5	5	16.25	140	2.5
Rochester	18	6	33	9	3	12	12	12	33	27	3	0	6	18	192	3
CMU	12	6	26	6	6	12	12	4	14	16	12	0	8	24	158	6
UCLA	24	18	39	12	3	12	27	6	36	24	15	3	24	54	297	6
IIM A	2.65	5.3	15.9	10.6	0	5.3	5.3	0	17.225	6.625	15.9	0	2.65	23.85	111.3	0
IIMC																
Typical BM	21.32	17.79	44.50	17.52	7.54	9.50	33.41	11.04	34.25	20.73	18.39	13.57	10.50	51.98	312.04	

Code: Decision Sc- Decision Science, HRM & IR – Human Resources Management & Industrial Relation, IT & sys- Information Technology & Systems, Strategy & Int- Strategy & International Business, Mktg- Marketing, Op. Mgt- Operations Management, OB – Organisational Behaviour, Public Pol – Public Policy, Entrepr- Entrepreneurship Management, Others – Subjects not covered under any of the previous categories. E-Prime represents specific entrepreneurship dedicated courses offered by entrepreneurship centres outside the entrepreneurship offerings of core functional areas.

Figure 10

Number of Elective Courses

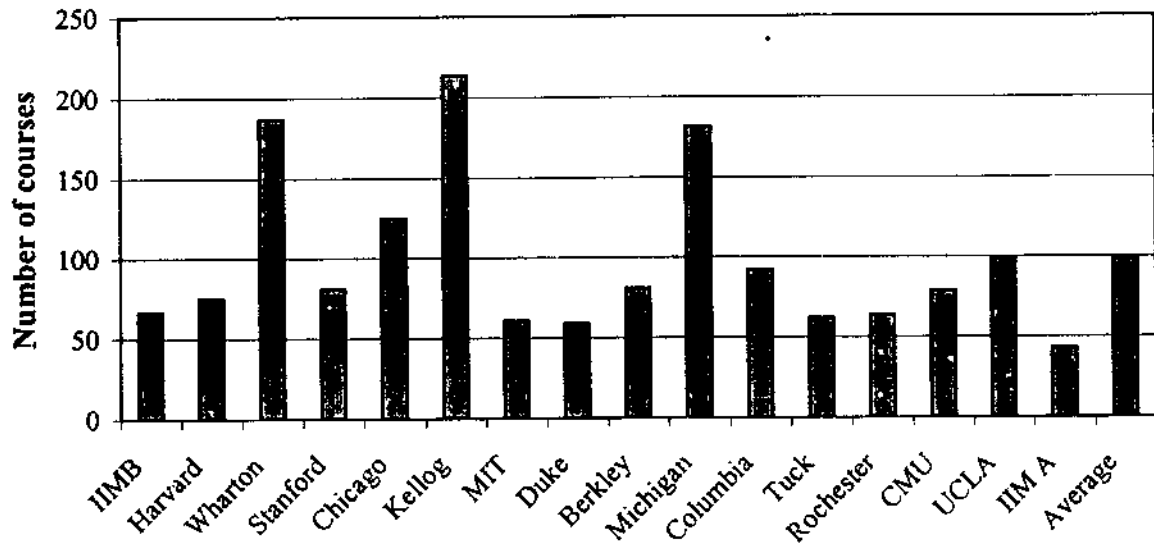


Figure 11

Total Elective Credits

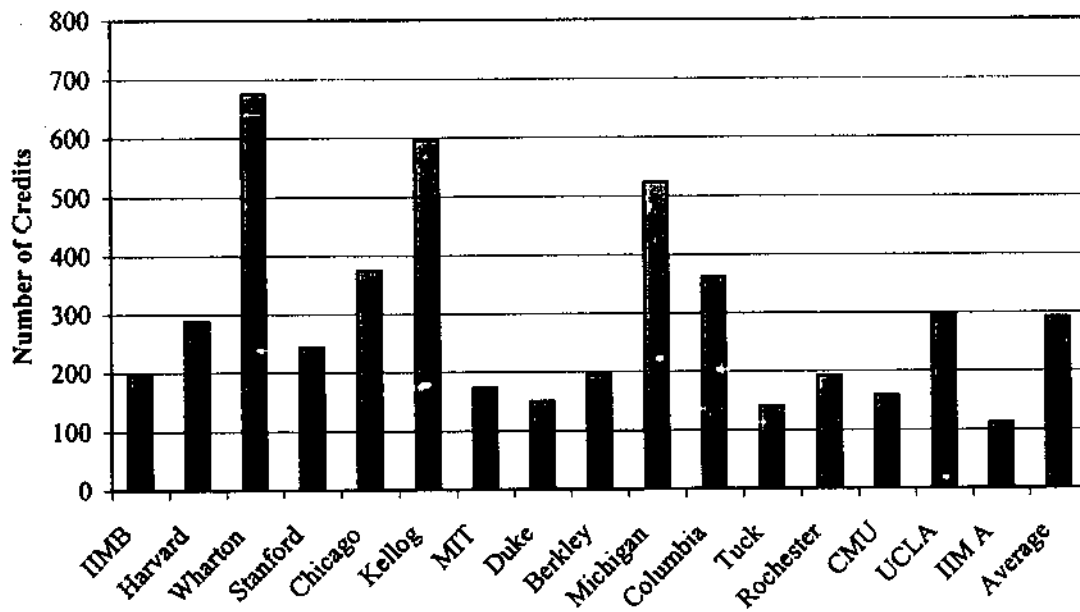
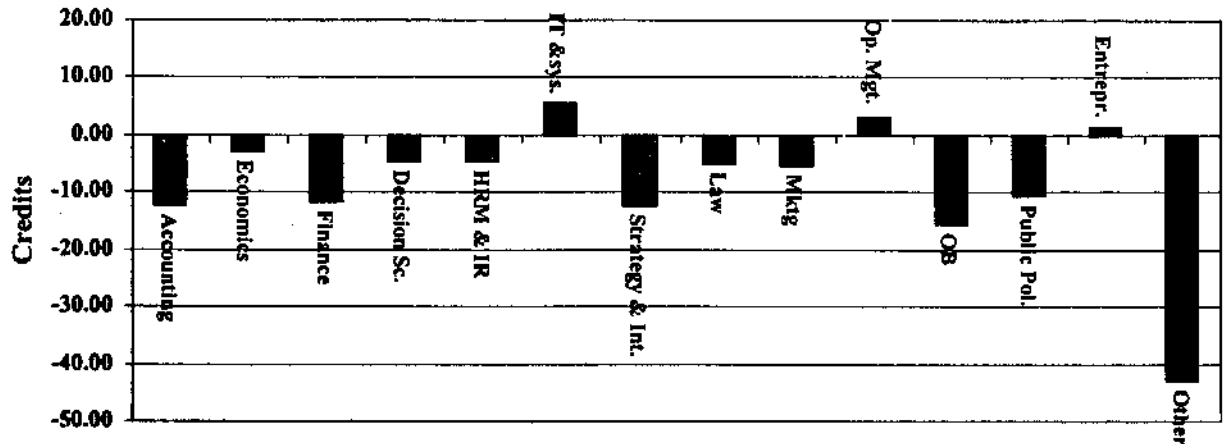


Figure 12

Difference in Elective credits (IIM B vs Typical BM School)



It is also interesting to examine the number of elective offerings across areas with IIMB. Figure 13 shows that the Finance, Marketing, Operations Management, and Strategy areas lead in terms of elective course offerings. Public Policy, HRM & IR, OB, Law, and Accounting offer very few electives. Entrepreneurship, Decision Sciences, IT & Systems and Economics offer a reasonable number of electives.

If IIMB can talk of specialization, then the obvious candidates are from Finance, Marketing, Operations, and Strategy. Since the General Management orientation is quite important for IIMB, it may be useful to offer more electives in HRM and OB.

Figure 13

Elective courses / credits distribution area wise

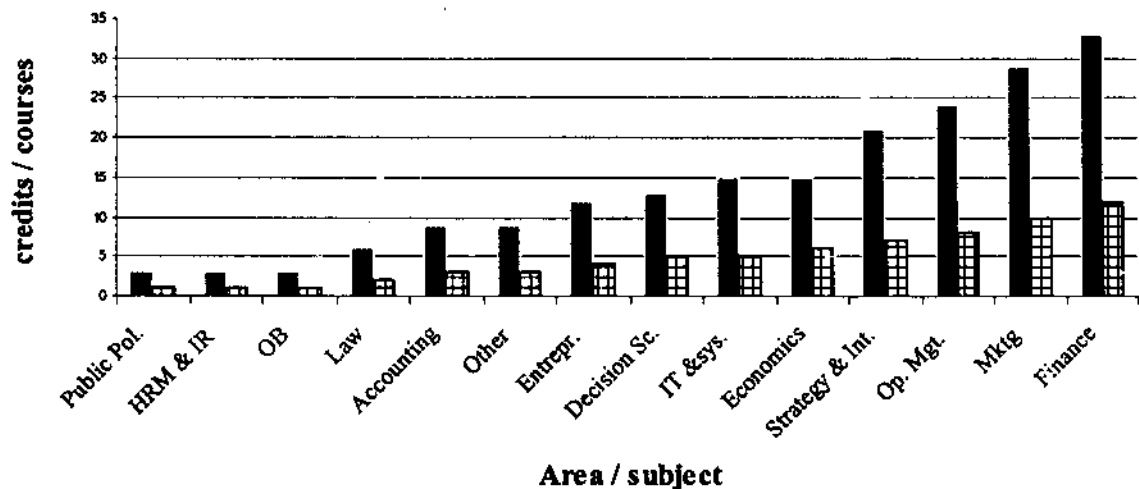


Table 8.
Percentage allocation of credits to area wise electives

School	Accounting	Economics	Finance	Decision Sc.	HRM & IR	IT & sys.	Strategy & int.	Law	Mktg	Op. Mgt.	OB	Public Pol.	Entrepr.	Other	Total
IIMB	4.62%	7.69%	16.92%	6.67%	1.54%	7.69%	10.77%	3.08%	14.87%	12.31%	1.54%	1.54%	6.15%	4.62%	195
Harvard	8.33%	5.56%	14.58%	1.39%	4.17%	2.78%	13.89%	1.39%	11.81%	9.72%	6.94%	4.17%	2.78%	12.50%	288
Wharton	3.56%	0.00%	13.33%	7.11%	1.19%	4.15%	11.26%	6.52%	7.70%	3.85%	3.56%	4.44%	2.07%	31.26%	675
Stanford	7.41%	8.64%	11.11%	1.23%	2.47%	2.47%	7.41%	1.23%	12.35%	6.17%	9.88%	8.64%	7.41%	13.58%	243
Chicago	6.40%	12.00%	18.40%	7.20%	3.20%	1.60%	8.80%	2.40%	13.60%	3.20%	8.00%	5.60%	4.00%	5.60%	375
Kellog	5.53%	8.54%	13.57%	5.28%	2.76%	0.00%	10.30%	1.26%	10.30%	3.02%	7.04%	4.02%	1.76%	26.63%	597
MIT	3.45%	0.00%	13.79%	16.38%	0.00%	5.17%	9.48%	3.62%	6.90%	12.07%	4.31%	0.00%	4.31%	15.52%	174
Duke	10.03%	3.34%	18.39%	8.36%	1.67%	0.00%	8.36%	5.02%	16.72%	6.69%	3.34%	1.67%	0.00%	16.39%	149.5
Berkley	8.25%	3.87%	11.60%	2.58%	1.29%	8.25%	13.92%	0.00%	10.82%	8.51%	2.58%	11.34%	2.58%	14.43%	194
Michigan	7.63%	3.05%	11.83%	5.73%	2.67%	3.82%	13.74%	5.34%	9.92%	10.69%	6.87%	6.11%	3.44%	9.16%	524
Columbia	8.84%	11.05%	16.57%	5.52%	5.52%	1.10%	12.15%	3.31%	10.50%	3.31%	6.63%	5.52%	2.21%	7.73%	362
Tuck	8.93%	12.50%	14.29%	6.25%	0.00%	0.00%	11.61%	1.79%	14.29%	6.25%	7.14%	1.79%	3.57%	11.61%	140
Rochester	9.38%	3.13%	17.19%	4.69%	1.56%	6.25%	6.25%	6.25%	17.19%	14.06%	1.56%	0.00%	3.13%	9.38%	192
CMU	7.59%	3.80%	16.46%	3.80%	3.80%	7.59%	7.59%	2.53%	8.86%	10.13%	7.59%	0.00%	5.06%	15.19%	158
UCLA	8.08%	6.06%	13.13%	4.04%	1.01%	4.04%	9.09%	2.02%	12.12%	8.08%	5.05%	1.01%	8.08%	18.18%	297
IIM A	2.38%	4.76%	14.29%	9.52%	0.00%	4.76%	4.76%	0.00%	15.48%	5.95%	14.29%	0.00%	2.38%	21.43%	135
IIMC															
Average															
Typical BM	6.83%	5.70%	14.26%	5.61%	2.42%	3.04%	10.71%	3.54%	10.98%	6.64%	5.89%	4.35%	3.36%	16.66%	312.04

Code: Decision Sc- Decision Science, HRM & IR - Human Resources Management & Industrial Relation, IT & sys- Information Technology & Systems, Strategy & Int- Strategy & International Business, Mktg- Marketing, Op. Mgt- Operations Management, OB - Organisational Behaviour, Public Pol - Public Policy, Entrepr- Entrepreneurship Management, Others - Subjects not covered under any of the previous categories. E-Prime represents specific entrepreneurship dedicated courses offered by entrepreneurship centres outside the entrepreneurship offerings of core functional areas.

The potential landscape of electives is very large as is evident from the data presented. IIMB could also consider offering electives cutting across areas – valuation of intellectual capital, entrepreneurial finance, literature, ethics & business, etc. These courses could also be used as trial experiments where the successful ones could after some time be incorporated into the MBA core and can differentiate the school from other schools.

One must recognize that larger schools (with larger infrastructure and a larger student and faculty body) are in a better position to offer a larger number as well as a more varied set of elective courses. Table 8, therefore, presents the same information as in Table 7 but in the form of percentage time allocated in elective course across the areas. The typical benchmark school expends more resources in Finance (14.26%), Marketing (10.98%), and Strategy (10.71%) than in other areas. The corresponding percentages for IIMB are 16.92%, 14.87%, and 10.77%, respectively. Interestingly, the typical school expends only 6.64% time on Operations Management whereas IIMB expends 12.31% of time on the same subject area. The major shortfalls are in the areas of HRM and IR, and OB.

11. Positioning of IIMB with respect to the benchmark schools in elective offerings.

We classify elective offerings among the various areas into two categories: (core) functional areas and (non-core) specialized courses. For example Finance, Economics, Marketing etc. would form (core) functional areas. In contrast, entrepreneurship, real estate, and public policy would be considered (non-core) specialized areas.

For each school, we compute the total credits offered in the top four (core) functional areas and define it as a measure of the “functional focus” of the school. The total credits offered in the non-core areas are used as a measure of the “differentiation focus” of the school. Table 9 presents the data.

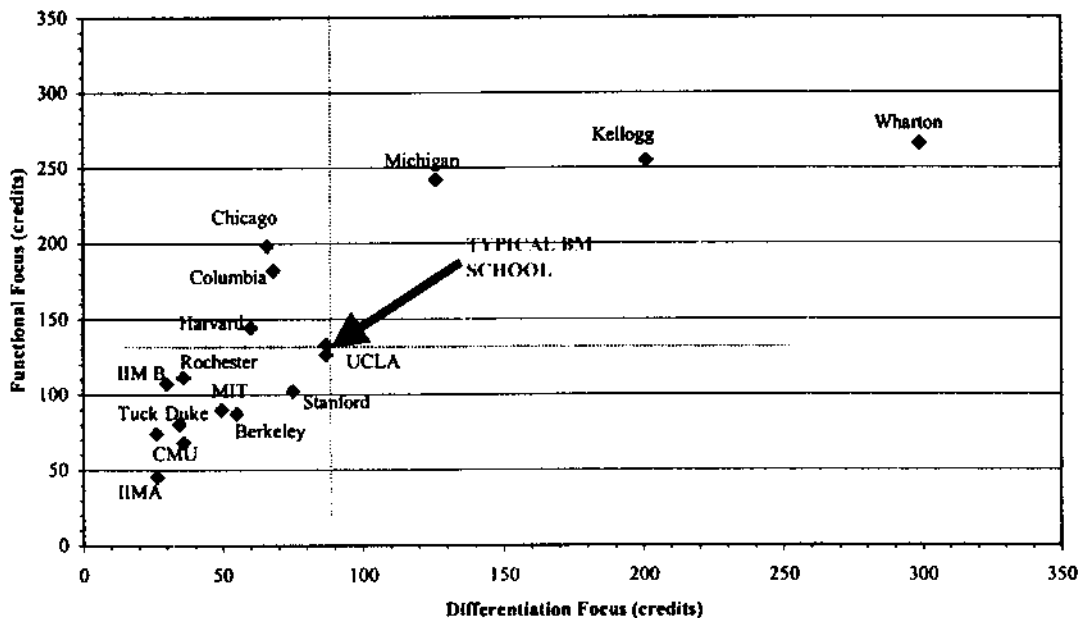
Table 9
Credits allocation to Function Focus vs. Differentiation Focus

School	Core Credits	Non core credits	Core-focus credits
IIMB	165	30	107
Harvard	228	60	144
Wharton	376	299	266
Stanford	168	75	102
Chicago	309	66	198
Kellog	396	201	255
MIT	124.5	49.5	90
Duke	115	34.5	80
Berkley	139	55	87
Michigan	398	126	242
Columbia	294	68	182
Tuck	113.75	26.25	73.75
Rochester	156	36	111
CMU	122	36	68
UCLA	210	87	126
IIM A	84.8	26.5	45.05
IIMC			
Typical	224.95	87.09	132.89
Average	214.08	79.58	137.36

Figure 14 depicts the data in Table 9. All the benchmark schools and IIMB are positioned along these two dimensions - functional focus and differentiation focus. Some interesting

Figure 14

**Comparison of Schools (Functional Focus vs. Differentiation Focus)
credits**



facts emerge from analyzing the chart. Compared to the typical benchmark school, IIMB appears to be lower on functional focus as well as differentiation focus. However, since a number of schools are clustered around IIMB, it seems that a few outliers, e.g., Kellogg, Wharton and Michigan are driving the location of the typical benchmark school. In other words, IIMB seems to offer a good balance along both dimensions.

Kellogg, Wharton, and Michigan seem to be higher on functional focus as well as differentiation focus. Since they are much bigger schools, it is possible that scale effects are driving this phenomenon. Schools that are high on function focus but low on differentiation focus are Chicago, Columbia and Harvard. Interestingly, there is no school that follows a strategy of high differentiation focus and low functional focus. A key insight from this positioning chart is that one should first develop functional focus in the basic management disciplines before pursuing differentiation or more specialized focus. Also, pursuing a differentiation focus may be suitable only when the scale of operation is larger.

Given IIMB's relative position and its current scale of operations, it may be reasonable to first of all increase functional focus in the basic disciplines of management before attempting differentiation focus. In operational terms this would mean more electives in the basic areas of management like Finance, Operations, Marketing, Strategy, OB / HRM etc before moving into more specialized fields like Entrepreneurship, Real Estate or Health Management or Telecommunications or Biotechnology. It may still be possible to pursue scope economies

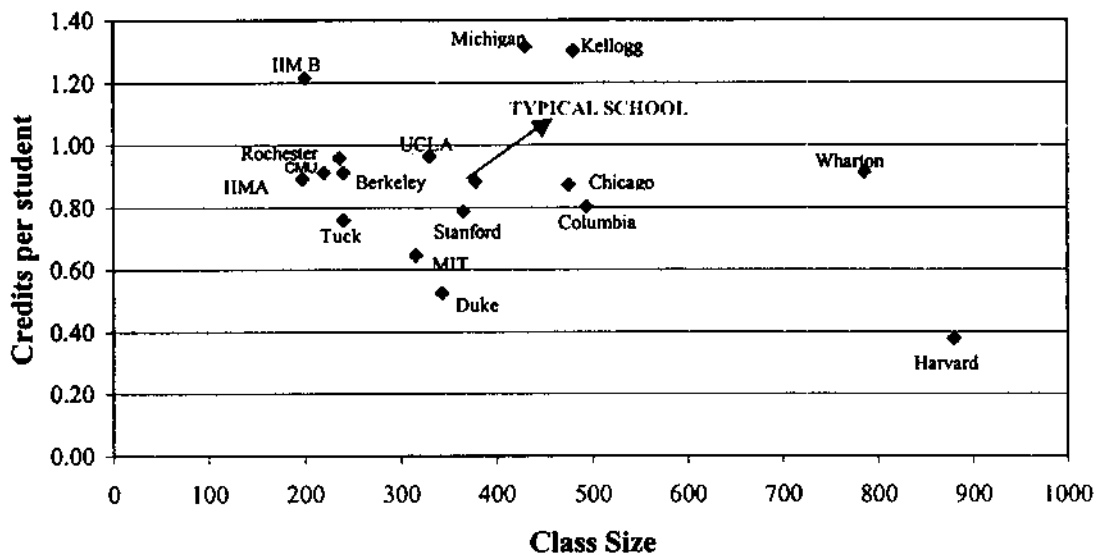
through using the same functional focus to address related activities such as a Post Graduate Program for Software Managers (PGSM), or a Post Graduate Programme for Public Policy Managers (PGPPM), etc.

To examine the scale effects, we collected data on student enrollment and faculty strength for the benchmark schools. Table 10 shows the data. We find that IIM has one of the lowest students to faculty ratio, which would mean that students get a lot of customized attention. In fact all the IIMs are comparable on this count. More importantly, IIMB offers among the highest elective credits per student. This is an indication of the strength of the elective offerings at IIMB. Figure 15 plots the credits per student versus the class size in order to normalize for scale effects. At the scale of 200 students IIMB clearly has the highest elective courses per student. While our earlier analysis had indicated that IIMB elective offerings were somewhat less than those offered at the typical benchmark school, it is clear that scale effects show a different picture. Given the IIMB class size, one can safely conclude that the elective offerings are quite impressive. The only issue is with respect to certain areas e.g., HRM and OB where more elective offerings could enhance the programme even more.

Table 10.
TOTAL SCHOOL WISE CREDITS DATA

School	Core credits	Elective credits	Total credits	Class size	Credits per student	Faculty Strength	Student/Faculty Ratio
IIMB	48	195	243	200	1.22	69	2.9
Harvard	45	288	333	880	0.38	229	7.88
Wharton	41	675	716	785	0.91	278	2.92
Stanford	44	243	287	365	0.79	186	4.03
Chicago	39	375	414	475	0.87	182	5.45
Kellog	27	597	624	480	1.30	287	4.36
MIT	30	174	204	316	0.65	169	4.4
Duke	30.5	149.5	180	343	0.52	155	4.49
Berkeley	24.5	194	218.5	240	0.91	202	2.33
Michigan	41	524	565	430	1.31	226	3.85
Columbia	34	362	396	494	0.80	272	4.31
Tuck	42	140	182	240	0.76	64	7.25
Rochester	34	192	226	236	0.96	65	2.91
CMU	42.5	158	200.5	220	0.91	100	4.69
UCLA	21	297	318	330	0.96	115	5.83
IIM A	65.25	111.3	176.55	198	0.89	74	2.68
IIMC	64.5			193		68	2.84
Average	39.60	292.18	330.22	377.94	0.88	161.24	4.30

Figure 15
Scale Effects



12. Overall Position of IIMB (core plus electives) with respect to benchmark schools.

Table 11 provides an overview of the IIMB position on the core courses, elective courses and total offerings of credits in relation to the number of credits required to be taken by the student for graduation. IIMB offers 4.33 elective credits for every elective credit that needs to be taken by its MBA student. It offers 2.61 credits (core + elective credits) for every credit that needs to be taken by the students for graduation. As one can infer from Table 11 for its scale of operation, IIMB seems to be doing quite well in its elective offerings and reasonably well on its overall offerings to the students.

13. Overall conclusions

1. In the core curriculum, it might be worthwhile to re-look at IIMB unique core course offerings vis-a-vis other schools.
2. The overall credits in the core curriculum have to be reduced to keep pace with global standards.
3. To achieve the objectives in #1 and # 2, certain courses (as discussed earlier) have to be integrated across disciplines to reflect contemporary changes in management knowledge, practice and pedagogy.
4. While IIMB elective offerings are comparable to the best in the terms of electives per student, there is room for offering more electives in certain areas, e.g., HRM & OB.
5. IIMB could strengthen functional (basic management disciplines) and inter-function focus in electives.
6. IIMB could consider moving PGP curricula into specific areas, e.g., hi-technology, biotechnology, entrepreneurship, public policy, etc. [unrelated diversification]. IIMB should tread with caution in looking at such moves (termed differentiation) on more specialized offerings addressing specific industrial or service sectors in core/ electives.
7. IIMB could reuse its PGP curriculum structure for a variety of new audiences, e.g., PGSM, PGPPM, or what can be simply called related diversification.
8. IIMB could try a combination of the strategies outlined in # 6 and #7 above.

9. It would appear that a reduced more integrated core curriculum with a functional and inter-functional (basic management discipline) focus in electives may be the optimum mix of course offerings for IIMB given its current size, position and capabilities vis a vis the benchmarked schools.

While some marginal increase in the PGP intake can take place (maybe one section can be added) it may be better for IIMB to pursue an approach that uses the same basic PGP core and elective offerings to look at other segments of the management education market. In terms of benefit to cost ratio, economies of scope rather than economies of scale may be a better route for IIMB growth currently. PGSM and PGPPM programmes from this point of view may not be a bad option to pursue at least for the next few years.

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Table 11
Overall Position of IIMB (Core + Electives) with Respect to Benchmark Schools

School	Core Requirements		Elective Requirements		Total Credits needed for graduation (5)	Elective Credits Offered (6)	Total Credits offered (core + elective) (7=5+6)	Elective credits offered per elective credit needed (8=6/4)	Total credits offered per total credit needed (9=7/5)	No. of Students
	Courses (1)	Credits (2)	Courses (3)	Credits (4)						
IIMB	16	48		45	93	195	243	4.33	2.61	200
Harvard	12	45	10	40	85	288	333	7.20	3.92	880
Wharton	15	41		37	78	675	716	18.24	9.18	785
Stanford	13	44	14	31	75	243	287	7.84	3.83	365
Chicago	10	39	11	33	72	375	414	11.36	5.75	475
Kellog	9	27	14	42	69	597	624	14.21	9.04	480
MIT	12	30		54	84	174	204	3.22	2.43	316
Duke	12	30.5	14	35	65.5	149.5	180	4.27	2.75	343
Berkeley	11	24.5		37	61.5	194	218.5	5.24	3.55	240
Michigan	13	41		45	86	524	565	11.64	6.57	430
Columbia	10	34		42	76	362	396	8.62	5.21	494
Tuck	13	42	14	42	84	140	182	3.33	2.17	240
Rochester	9	34	11	38	72	192	226	5.05	3.14	236
CMU	13	42.5		35	77.5	158	200.5	4.51	2.59	220
UCLA	7	21	15	51	72	297	318	5.82	4.42	330
IIMA	15	65.25		45	110.25	135	200.25	3.00	1.82	198
IIMC	17	64.5	13	39	103.50	n.a	n.a	n.a	n.a	193
Average	11.81	37.86		40.75	78.80	293.66	331.70	7.37	4.31	377.94
Median	12	40		41	76.75	219	265	5.53	3.69	336.50
Min	7	21		31	61.5	135	180	3.00	1.82	198.00
Max	16	65.25		54	110.25	675	716	18.24	9.18	880.00

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