

**Industry-Academia Collaboration
In Teaching Of Operations Management
At
S P Jain Institute Of Management & Research, Bombay**

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Jamshed A. Modi

S P Jain Institute Of Management & Research

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Jamshed A. Modi
S P Jain Institute Of Management & Research
(modi@spjimr.ernet.in)

Abstract

S P Jain Institute Of Management & Research (SPJIMR) has consistently been ranked among the top 10 business schools in India. Its flagship program is the 2-year Post-graduate Program (PGP) in management. Over the years SPJIMR has developed a strong relationship with major corporations all over India, which benefits both the corporations as well as the students of the Institute. This relationship has benefited students in all the 4 major streams in the PGP, namely Operations Management, Information Management, Financial Management and Marketing Management. This paper briefly reviews some of the pedagogical initiatives the relationship has fostered, plus it describes a new proposed initiative for the introductory course in Operations Management for the first year students. In the proposed initiative, the role of classroom instruction is diminished, and that of learning from industry visits is dominant.

Introduction –

Although manufacturing has long back lost its predominant position in our modern economies, most business school texts and courses in basic operations management are still heavily slanted towards manufacturing operations. In fact at S P Jain Institute Of Management & Research (SPJIMR), our own department was until last year known as “Manufacturing & Operations Management”. In recognition of the fact that there are a whole host of other operations in this world, equally large, important, complex and interesting if not more so, we at SPJIMR have re-named our department “Operations Management”.

Along with the enlarged scope implied by this change of name, we plan to change the pedagogy of our basic course in Operations Management to enable a greater proportion of learning for the students to come from the field, and less from the classroom. What is being contemplated here is a higher level of industry-academia collaboration in the teaching of Operations Management than what we have at present

This paper is in 5 major sections. Section 1 begins with a brief overview of SPJIMR and its interactions with industry to-date, which have set the stage for the proposed new pedagogy. Section 2 explains the present structure of our introductory course in Operations Management. Section 3 discusses some of the conceptual difficulties

involved in working out such a program. Section 4 outlines the proposed course structure and management. Finally Section 5 outlines some Administrative challenges that will have to be faced.

1. Overview Of SPJIMR

SPJIMR is one of the institutions of what is known as Bharatiya Vidya Bhavan, a large, multi-faceted cultural and educational organization, founded in 1938 in Bombay, now having branches in many cities of India, and the world. (www.bhavans.info). SPJIMR, as its name indicates, is a management institute, (www.spjimr.org) and is located in what is known as Bhavan's College Campus in Andheri (W), Bombay, along with other colleges of arts, science, commerce and engineering of the Bharatiya Vidya Bhavan.

Founded in 1982, SPJIMR has grown rapidly in stature under the visionary and dynamic leadership of its present Dean Dr. M. L. Shrikant. It has consistently ranked among the top 10 business schools in India, and in the 2005 survey of Indian management schools by Business Standard, it ranked No 5.

Its flagship program is the 2-year post-graduate program in management, which is a full-time residential program, with majors in Operations, Financial, Marketing and Information Management. During the first year all students take basic courses in each of the major areas, plus courses in support fields such as personal communications and negotiating skills, people and performance, economics, quantitative methods, etc. Then in the second year, they break up into their respective majors, and take further specialized courses in their major areas. SPJIMR has recently tied up with Virginia Tech of the US, to offer a joint SPJIMR-VT Master's in Information Technology. It has recently opened its first overseas campus in Dubai, and is shortly opening another overseas campus in Singapore. There it offers a Global MBA Program, with specializations in Investment Banking, Wealth Management, Retail Management, Services Marketing and Management, IT Management and Global Logistics Management.

In Bombay, besides the 2-year program mentioned above, SPJIMR conducts an Executive MBA program, and an FMB program for family managed businesses. It has also started recently a 1-year MBA program for industry people who have had anywhere from 5 to 10 years of experience and wish to further their careers through formal training in management.

As part of the 2-year MBA program, all students in all majors undertake 2 field assignments. The first comes at the end of the 1st year and is known as the DOCC (Development Of Corporate Citizenship project. This is an approximately 10 week project, where each student is assigned to a social service non-governmental organization (NGO), where he contributes his skills to a specific social benefit project. Most projects are for the economically and socially under-privileged or physically challenged, and are in rural or slum areas. Most are also in remote areas, so that the students have to live in the surroundings in which their beneficiaries live. Most projects are highly acclaimed

when they are finished, and the DOCC program as a whole has won a number of national and international awards. SPJIMR has been rightly praised for this unique program to enable management education to make a difference in the lives of the under-privileged. Titles of a few recent DOCC Projects are given in Appendix 1.

The second field assignment comes towards the tail end of the 2nd year of the 2-year MBA program, and is known as the Autumn Project. This is an approximately 8 week project where each student is interviewed and signed on by an industrial/commercial company to work on a specific project of the company. Many of these projects are set up by the companies specifically for the student, as something that would benefit the company, as well as being doable within the 8 week period, and be challenging to the student. A small stipend is paid to the students by the company.

The Autumns are intended to be a “getting-to-know-you” exercise for both the company and the student, with an eye towards permanent placement during placement time which comes up a couple of months further down the academic year. The autumns projects are also highly praised by our industry partners, because many students demonstrate outstanding capacity to work, and make impressive contributions on their projects. Besides their technical, analytic skills many show excellent soft-skills such as ability to communicate, sell their ideas up and down the organizational hierarchy, team work, etc., and as a result there are quite a few PPO’s issued --- pre-placement offers to absorb the student in the company, in advance of the permanent placement process starting on the campus. Titles of a few recent Autumn Projects are given in Appendix 2.

So far our Autumn Projects have been confined to Indian corporations. But the world is getting smaller and borderless, and we intend to set up processes by which corporations in other countries can also participate, and reap the benefits of our pool of talented and well-trained future managers.

Autumn Projects are one avenue by which we endeavor to bring the industrial / commercial influence into the education of our students, but there are also others. For example, several courses of the MBA curriculum are taught by senior managers from the corporate world, and a few specific sessions in most courses are taken by these managers. As another example, we have a program called the CEO Lecture Series, in which almost every other month, there is a lecture by a senior corporate executive, on some aspect of modern management. Also there are Seminars, Excellence Award Functions, and Panel Discussions being held all the time under the auspices of each of the departments – Operations, Marketing, Finance and Information Management – at which practitioners from the corporate world come and present papers on the work they have done.

2. The Present OM Course

This paper is concerned only with the introductory Operations Management course. Our present introductory Operations Management course is a 2-part series designated OM 1 and OM 2, which is compulsory for all students in all majors of the 2 –year MBA

program. It is currently offered in Trimesters 1 and 2 of the first year. For the last few years, the standard textbook for the course has been the fine book by Profs. Chase, Jacob and Aquilano, "Operations Management For Competitive Advantage", which is also used by a number of other fine MBA programs both in India and the US.

Each OM course runs for about 20 sessions of 1 hour and 10 minutes. The pedagogy is currently primarily lecture-based, but there are about 4 or 5 sessions in each course devoted to case-discussions. There are also 6 or 7 papers assigned in each course from operations management, operations research, industrial engineering, supply chain, quality management and other related journals and websites, which the students have to study on their own.

Evaluation in each course is based on 3 tests carrying weightage of 30% each, and on an "OIC" (other indicators of competence – which includes assignments, attendance, class participation, and similar factors) carrying a weightage of 10%.

It should be mentioned that about 80 percent of our students (considered across all majors) have industrial experience of anywhere from 2 to 5 years. Exceptions would have more than 5 years. But that still leaves about 20% who have no experience. There is an added event in our calendar for the first-years, and that is a (optional) plant visit. This is usually a half-day visit to a manufacturing plant within driving distance of Bombay, and most of the no-experience students and many of the experienced ones opt to go.

Thus already there is considerable "real world" in the teaching of our introductory Operations Management course, but the fact remains that it is still predominantly class-room based. We intend to turn the tables on that, and make the course at least half-and-half class-room and real-world based. No doubt, the present pedagogy has worked very well. Student feed-back on the course remains high, and industry appreciation for course content and methodology remains good, as attested to by placement statistics, casual feed-backs from companies, etc. But in the true spirit of SPJIMR, we want to do better. Hence the drive for the proposed pedagogy that will give greater scope for out-of-class, in-the-field learning.

3. Some Issues That Need To Be Resolved

In general, the difficulties in developing the above type of pedagogy are well known, and will be briefly reviewed here in the context of our own Institute.

Consider, for example, the issue of what learning should take place in the field. We at SPJIMR have taken the approach that the basics of any topic in Operations Management will be covered in the usual classroom setting, and the reinforcing and additional, practical learning will take place in the field. So a desirable format would be that a topic would be "taught" in one or two sessions in class, and then the students would go out in the field to see how the topic is managed in the field. With Operations Management covering such a large number of topics, obviously all topics cannot be handled this way. In fact, given the constraints of time, most topics cannot be handled this way, and it is

necessary to restrict the in-field learning to a few selected topics. The choice of topics, then, is a major issue we had to resolve.

Next consider the issue of what is the in-field learning we can offer the students. Given the time constraints, we can plan at most 1 day in the field for one topic. And during that 1 day, we can offer the student an opportunity to observe how a particular company applies the techniques of a particular topic, or how it operates a particular managerial system or process. In other words, the learning will have to be mostly observational. Of course, there would be quite a bit of learning from discussions with the company's operations people. But if we include "observational" to mean what one sees as well as hears, we can still say that the learning would be mostly observational. This is as opposed to "practical", where they might learn from doing things, implementing ideas, etc., or "investigative", where they might learn from investigating specific issues, going after specific data, etc. We see no way as of today to bring in that sort of learning in the site-visits of this course. (Recall they get this kind of learning in their Autumn projects, anyway.)

Now consider the issues regarding the identification of participating companies. We are taking the position that for meaningful learning by the students, and for convenience of handling by the companies, there should be no more than 5 students in a company --- preferably 3. Our class size (presently about 150), implies that we will need about 40-odd companies to participate. This is per visit. Assuming that all companies are not suitable to provide the intended learning on all topics, we estimate we may need about 60 companies to partner with. Even though Bombay is blessed (?) with an abundance of fine companies within driving distance of our Institute, getting 60 companies to come on board, and working out a coordinated program with them is a long and laborious process.

There are a number of other issues that will need to be resolved before the new pedagogy can get going, but we have done enough thinking to be able to outline the format for the new course.

4. Format For Proposed Course

The new pedagogy is based on the concept that each student at the MBA level is quite capable of grasping at least 80% of most topics in operations management by reading up the fine texts and other materials available and prescribed for the course. What needs to be done to enhance the educational value of the course is to have the remaining 20% expounded on by the instructor, and to have some key topics seen being practiced in a real-world setting.

To begin with, we are planning that 3 topics each in OM 1 (Trim 1) and OM 2 (Trim 2) be identified as field learning topics. These are: In OM 1 -- Project Management, Facility Layout and Total Quality Management. In OM 2 -- ERP, Inventory Control and Operations Scheduling. This implies 3 field visits in each Trim. This could either add 3 (outdoor) days to each Trim, making each Trim of 23 days of OM, or if this is not feasible from Institute-wide considerations, we could eliminate say 2 days (and their

topics) from the schedule, and let each Trim have 21 days of OM, which should be feasible. We have not yet fully explored the pros and cons of these choices.

We are presently considering eliminating 3 more topics from the classroom (but not from the curriculum) to accommodate 3 sessions of reviews of the field-visit. The learning value of the field visits would be greatly enhanced, if students could share their observations at their respective host-companies.

We will be asking each host company to set up a company coordinator who will interact with us at the Institute, and who will personally see to it that the students get a good learning experience at the company. This means arranging short briefings / presentations at the company, conducting walk-throughs, arranging interviews and group-discussions with key company personnel, arranging data handouts, arranging temporary facilities for the day where the students can study material given to them and discuss among themselves, seeing to their meals and snacks, etc.

This company coordinator will be briefed on the entire course content in general, and on the topic of the visit in particular. He will have some idea of what was said on this topic in class, what some of the numerical exercises in the curriculum are like, and what we in the Institute would like the students to be exposed to. Of course, in this the coordinator himself would have substantial inputs to make, since he is the best person to know what can and cannot be shown in his company when the students come. But once the visit plan is finalized with him, there will be a common understanding of what the students should be shown on how their visit time should be utilized.

We realize that there might be a considerable “cultural gap” between the students and their coordinator, with the students tending to be “academic” and the coordinator tending to be “practical”. The main consequence of this gap which we are trying to avoid is that the coordinator may not be motivated to give the students the exposure they want, or some data which they ask for, etc. We are trying to avoid this gap by planning a well-designed “orientation program” for the corporate coordinators, which will make them appreciate the outlook and requirements of MBA level Operations Management students. In other words, we will be trying to make the practical people a little more academic.

Our interactions with corporate people in other programs give us hope that this is achievable. In most of the corporate people we have interacted with we notice a certain eagerness and enthusiasm on their part to demonstrate to us that they are up on academic jargon and sophisticated tools and techniques of management, even if they don't use many (or any) of these themselves in their companies. There is also a noticeable pride and pleasure in interacting with our professors. All this augurs well for our ability to identify “good” coordinators in the companies, who will provide maximum cooperation to our students in acquiring the learning they want.

By way of monitoring the field-learning process, and also to disseminate it among the class, each group will be asked to turn in a report describing and critically appraising what they saw and heard, with special reference to the discussions and readings on the

topic done before the visit. A field visit report is expected to be anywhere from 5 to 15 A4 pages, and should contain at a minimum a detailed description of the function studied during the visit, the briefings given by the hosts, and the question-and-answer sessions that took place. It should also contain remarks on the extent to which the techniques and concepts discussed in the preparatory session for the topic were being used in the company, whether more advanced techniques were being used, or in case they were not used, what other techniques or concepts were used and the reasons for the same. These reports will be distributed to all students, and they will be the focus of discussion sessions to be held on campus, during the immediate next scheduled class session.

In line with the shifted emphasis in the course pedagogy, there will be a shift in the evaluation pattern. There will still be 3 tests in each course, but now they will be jointly worth 30%, whereas the field visit reports will be worth 60%. The OIC (“other indicators of competence”) will continue to be worth 10%. As a measure to strengthen the relationship with the company coordinators, the field visit reports of the students will be sent to the coordinators for their comments --- after editing out any harsh or inappropriate remarks by the students that might appear occasionally.

5. Administrative Challenges

The proposed pedagogy will have to overcome considerable administrative challenges, but when these are overcome, the student response and receptivity as well as the host corporations’ response and receptivity will be gratifying.

As mentioned earlier, the entire batch of students would be divided into groups of maximum 3 to 4 students per group. This number is thought to be small enough to ensure contribution and participation of each member in the group, yet large enough to keep the total number of groups to a manageable size. This works out to about 30 to 40 groups.

Right away this means tying up with 30 to 40 companies, which for SPJIMR should not be an insurmountable problem, located as we are in a city with hundreds of companies in its municipal area, and several hundred more within a 2 hour driving distance of our campus. An attempt will be made to host each group at the same company throughout the trimester, but it may be that for some topics, some particular hosts may not be suitable, and others may have to be set up. So the total number of corporate hosts may be much higher than the number of student groups. All this will have to be carefully planned and worked out in advance, so that every visit by every student group is a memorable learning experience.

Clearly this will require setting up an administrator within SPJIMR whose major function will be to setup the host companies. A carefully planned program running over several months needs to be created involving publicity material, “road shows”, discussions and presentations to senior management in individual companies, etc., showing “what’s in it for us”, and getting them on board. The prime motivation offered to companies will be that this is a wonderful opportunity to acquaint some bright, talented future managers with your company. And that not only is there scope for immediate benefit from the

reports they submit after their visits, but there is the possibility that when the time comes for these students to seek permanent placement, they will look favorably upon the company they visited as part of their Operations Management course.

Particular attention will have to be devoted to evolve standards for how the host will interact with the students, what the students will be told and shown about their operations, availability of other personnel in the corporate whom the students may wish to talk to, etc. The administrator mentioned above will not only setup the companies but will also monitor the process as it unfolds, and iron out any kinks that may develop.

An important part of this administrator's job will also be the challenge of coordinating with the Scheduling Authority in the Institute for the main schedule in the first place --- and then handling the inevitable changes that will come as the Trimester proceeds. In setting up the schedule, the problem arises due to the fact that the classes of all other departments are affected – not just Operations Management. If the students are gone for a whole day, no other class can be scheduled on those days. Then, as the Trimester progresses, it is bound to happen that one or two companies may not be able to host their students on a particular day, or that one or two groups could not make it to their companies on a particular day, due to transport-related emergencies, etc. These sorts of “recovery” scenarios are going to be hard to handle, but with proper contingency planning, the disruptions can be minimized.

Concluding Remarks –

There is an increasing trend of opinion among management educators that the real learning of management does not take place in the classroom. The classroom has its place, and a lot of important things are learnt in a classroom setting. But the management lessons learnt in the field are the really crucial ones, they are imbibed more deeply and become part of the managerial nature. Can we as management educators, alter ourselves, our courses, and our teaching methods, to be in step with this trend? The on-going efforts at SPJIMR described above are an attempt to answer this question with a resounding “yes”.

Appendix 1

Titles Of A Few Typical DOCC Projects

1. Cheenu Gupta – “Livelihood Security For Earth-quake Affected Households In Gujarat”.
2. Ashish Bhiwandiwalla – “Job Development Center For The Blind”
3. Pratibha Ojha – “Decision Support Through Data Analysis At APF”
4. Nagraj Cherikuri – “Assessment Of trade Flows in Kuppam, And Banking For The Unbanked”
5. Acharna Khemka – “An MIS For the Education Unit Of CINI Asha”
6. Acharna Ram – “Strategies For The Effective Implementation Of Leprosey Elimination Action Program”
7. Payal Sinha – “Evaluation Of Costing System At PRIA”
8. Surabhi Gupta – “ Re-positioning The Brand Of CWC (Concerned For Working Children)”
9. Mayank Jain – “Local Community Support Development To Raise Funds For Child Health Program”.

Appendix 2

Titles Of A Few Typical Autumn Projects

1. Eshwari Deshpande – “Pre-launch Market Research Study At Novartis India Ltd. For Drug-X In India”
2. Shamindra Basu – “Understanding Variability In The ITC Supply Chain”
3. Deepak Balakrishnan – “Replenishment Policies In The Pharma Industry In India”
4. M. Soundarya – “Legal Entity Consolidation At GE India”
5. Ashish Prasad – “Transaction Banking For Shipping And Airline Industry Of Singapore”
6. Kaushlendra Tripathi – “Building Solution-Area Specific Knowledge transfer Tools At IBM Global Services India Ltd”
7. Neeraj Kumar and Sameer Sethi – “Demand Manager Solution Implementation For I2 Technologies (India) Pvt Ltd”
8. Akanksha Poddar – “Enhancement Of The Operating Model For Trade Products At Citibank India”
9. Madhumita Dash – “Analyzing The Portal Landscape In India, And Suggestins For Go-To-Market Strategies For Microsoft”
10. Issace John – “Identifying Opportunities For Increasing Consumption Of Cadbury’s Dairy Milk Among Core Consumers”
