



An Exploratory Study of Factors affecting MBA Students' Attitude
towards Learning via Case Study Pedagogy:
Insights from Advertising Literature

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Abstract

Case based pedagogy has become popular in most business schools today, since the pioneering efforts made by Harvard Business School, several decades ago. Although the case method approach stands firmly on grounds its effectiveness in 'simulating reality of the business world' in the classroom, yet it has its own limitations and cannot be used in all learning situations. This article delves into both sides of the debate on the efficacy of case method for learning and through an exploratory study, models the attitude of MBA students towards the perceived learning aspects of the pedagogy. The premise of our beliefs-only attitude model rests on the conceptual analogy between a case study and an advertisement message as two similar forms of communication technology. Drawing heavily from the insights available in the advertising literature, the article suggests several hypotheses for future empirical validation.

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Introduction

Business Schools constantly strive to make their MBA students imbibe the essential management skills required to survive and excel in today's hyper-competitive business world. Towards this goal, driven partly by the dynamically evolving agenda of the industry- where these MBA students enter as their 'products'- business schools develop and customize appropriate classroom pedagogies, to ensure that their 'flagship products' shine in the business world, while carrying the torch of their alma mater.

Classroom pedagogy should ideally facilitate not only the key learning or 'takeaways' from the Instructor, but also simulate some elements of the 'real' business world, where the MBA students will soon enter to make their mark. In this context, the Instructor's task in the classroom becomes more challenging. Any pedagogy is as good as it is delivered, and is another tool at the instructor's disposal to 'drive home the point'; and thus its impact on learning in the classroom is immense.

Among the most prevalent pedagogy is the case method (or case-based pedagogy) which draws its popularity originally from the pioneering efforts of Harvard Business School (HBS) in the US, several decades ago, and since then the case study has established itself as a predominant pedagogical tool in many Business Schools around the world. The case method pedagogy derives its historical moorings in legal and medical education in the 19th century, where it was used to illustrate and teach general principles as well as specific subject-matter and modes of analysis (Boehrer & Linsky, 1990). But it was primarily Harvard University's initial success in the Harvard Law School, which led to its adoption in its business school, in the then prevailing competitiveness between the business schools in the US. The new pedagogy served also primarily to differentiate HBS from others in the clutter of business schools in the US, to provide higher situational

learning and more realism. Case studies account for around 80% of the coursework at HBS (The Economist, 1995, p. 69).

In the Indian context, IIM Ahmedabad (established in 1963 with the contributing efforts of Harvard Business School) has been one of the pioneers of the case based pedagogy amongst business schools for its flagship PGP (MBA) program. The students are put to the rigor of case-based learning from the first trimester itself, and by the time they complete the first year, they have participated in discussions of over 300 cases in more than 20 courses studied. In the second year too, the pedagogy is primarily case-study based, although the intensiveness reduces, compared to the first year.

Literature Review

McDade (1995) notes that case study as a pedagogy is as old as the ‘ancient story tellers who told narrative (case) to promote children’s individual discovery of wisdoms, knowledge of the surrounding world, and development of the thought processes of survival’. However, the goals have remained the same over centuries- that of ‘fostering critical thinking and reflection so that students learn how to learn on their own.’ He even defines a case as, ‘a particular type of document created for a specific purpose... a story about a situation that is carefully designed to include only facts arranged in a chronological sequence’ and is purposefully crafted to support intensive discussion and analysis. According to McDade (1995), one of the most important purposes of a teaching case is to create ‘realistic laboratories’ in the classroom so that ‘research techniques, decision making skills and critical-thinking analysis’ can be applied.

Interactive learning is fast becoming popular due to the shifting concept of education from teaching to learning. Garvin (1991) appeals for doing away the lecture based pedagogy for more interactive learning on grounds of latter’s greater retention of knowledge (as participants are more active than passively listening in lecture based pedagogy), the ability to learn skills such as analysis, problem-solving and judgement which cannot be taught and also due to the need to have an alternative to age old lecture based classroom environment. All these factors in favor of interactive pedagogy like case based pedagogy.

However this pedagogy is not bereft of its limitations. Several doubts have also been raised about the learning value of the case method and the stand of 'realism', which forms the context of learning in the case. Hoskin (1998) rephrases this as, "*real life squared*". Locke (1993) states that the claims for learning in formal management education can be questioned on the grounds of the relative success of German and Japanese economies, where the case study pedagogy has not taken root. Discussing the internal value of a case study for learning, Hoskin (1988) argues that the prerequisite of a case is that it should be an opaque text in the form of an episode with its events and actors evaluating the possible solutions to the problems. The opacity of the case should be resolved through careful examination of the case by the student.

Learnings-Case Based Pedagogy

There is a paucity of relevant literature which examines the impact of case study method on learning in the management education. However several studies in psychology, critical thinking, geography and other social sciences, do suggest the possible outcomes on learning using the case approach. However most of these studies have tried to measure the quantum of incremental learning as a result of adopting the case based teaching pedagogy in the classroom and have not looked at the attitudinal aspect of its impact on the participating students. McDade (1995) recognizes this dilemma in research on case method of pedagogy. He stresses that since the learning outcomes cannot be easily evaluated through conventional testing methods, the process of critical analysis should be measured instead, to overcome this shortcoming. In this context, our study is not only useful but also seminal and pioneering in providing directions for further studies on attitudinal changes brought by case method of teaching in the classrooms.

Case Studies help students to analyze information, undertake critical thinking (McDade 1995) and encourage active learning, problem solving skills and impart real life into the subject matter (Millis and Cottell 1998). Further Perkins (1991) suggests from the domain of abnormal psychology, that case study based assignments enhance self-directed learning. In psychology, case study effectiveness for learning has been studied by Bibace et al (1976), who tested students for case based learnings on various theoretical paradigms. In this study, students rated the instructor high, and their test grades showed that their performance improved over time. But the study fails to control for confounding

variables affecting the outcome, like instructor style, or the prior knowledge, not covered in the course material.

A more recent study by Lafosse and Zinster (2002), on the use of case conference approach in psychology on learning new paradigm related information, came to the conclusion that students' knowledge about paradigms actually improved. But in the study the test has been conducted on groups rather than on individuals as unit of analysis, and hence the improvements in each individual cannot be properly isolated. Moreover the study like the previous one, fails to control for confounding variables which could have affected the outcome.

According to Srinivasan et al (2005), the case study approach hones skills in handling uncertainty, change and builds tolerance for ambiguity among students. He further compares the case study and lecture pedagogies, and states that the former is more demanding since it goes beyond the spatial dimension to also bring in the temporal element. Hence a student in a decision-making situation in the case method would involve *“locating himself or herself at a particular locus in space and at a particular point in time to think through a problem involving decision-making in an organization in the context of a business situation”* (Srinivasan, 2005).

The classroom instructor plays a pivotal role that can facilitate or mar the learning of the students. Dixit (2005) suggests the various roles that the instructor plays: initiator, devil's advocate, listener, lecturer, and integrator. The role of the instructor is described here showing the entirety of the impact he/she can have in the classroom (Dixit, 2005):

“The instructor decides the case mix from the ready repository, books, and journals, and prepares a course pack ... and distribute the material to the participants well in advance. The sessions are of 70–90 minute duration. A typical day is so scheduled as to provide time for prior preparation and reflection. The instructor provides the guidelines for preparation. The participants form small groups for discussing the cases and readings before the class. The instructor may form the team. The participants

prepare as individuals and meet in a group to discuss the case. At times, the instructor takes rounds to provide support in the pre-class preparation. In the class, the instructor asks one of the participants or a team to initiate the class discussion and carries the class forward. The discussion in the class is systematically recorded on the blackboard. The instructor provides end-class questions to ponder over and leaves the task of reflection to the initiative of the participants. In some cases, the instructor meets the participants individually or in groups at least once during the course.”

Attitude towards Case Study-based Learning

Since there are no precedent studies on evaluating attitudes of students on case based pedagogy, we turn to behavioral research stream in marketing for directions, where we find several multiattribute attitude models in consumer behavior for evaluation of product/brand beliefs and choice by consumers. However, as mentioned before, no previous study has utilized any of such models in studying the attitude of students towards any pedagogy. Some of the widely used multiattribute attitude models are: Importance/Adequacy model; Beliefs only model; and the combined model. The adequacy models are found to have some significant advantages over the expectancy-value models and among these three, the beliefs only model provides the highest predictive validity, and thus we chose to use it in our study. Details of the various models and their comparative analysis can be found in Lindgren and Konopa (1980). The beliefs only model can be described as:

$$A_{oi} = \sum_{j=1}^{j=n} B_{oji}$$

where,

i= individual i; j= attribute; o= object;

A_{oi} = Individual i's overall attitude towards object O

B_{oji} =Individual i's belief that attribute j provides satisfaction from object O

n = number of attributes

We conceptualize that the case study is akin to a product and the students (equivalent to consumers) would form a belief system towards each of the attributes of the case study pedagogy. Since each student comes from a different social background (factored in the design of the PGP admission process), each individual is likely to have a unique set of beliefs towards the case study approach. These beliefs are formed and stabilized during the first year course work. Since our study is carried out after one year of the students having gone through the case studies, it is expected that both the belief system and the attitude towards the case study pedagogy would be stabilized and thus can be measured reliably.

Method

Exploratory Study

At IIM Ahmedabad, the PGP first year class has about 80 students, which has a mix of MBA, MBA-Agribusiness (around 7 students) and Doctoral or FPM (around 7 students) students. The students hail from myriad educational backgrounds and industry experience, although lately (in last few years), a majority of students have studied engineering for their undergraduate degree (almost 80% of the class strength). The diversity of these students is also very rich, as they hail from ethnically diverse states like West Bengal, Uttar Pradesh, New Delhi, Kerala, Tamil Nadu and Bihar. The male: female ratio is typically 6:1 (44 females of the total 307 students in 2007 PGP batch).

The beliefs only model was used to evaluate the attitudes of second year PGP students towards the various attributes of the case study learning approach experienced in the first year of the program. An exploratory study was conducted among 15 randomly selected second year (9 male and 6 female) students, where they were individually asked to list out all possible factors that they felt had the highest impact on their learning from case based pedagogy, drawing from their own classroom experience. They were also asked to include all the three phases of case-based learning, namely, pre-class preparation, class discussion and post-class reflection, while providing the list of factors. A large number of

variables were thrown up, the 10 most frequently cited factors impacting learning, after grouping into three general categories are:

Pre-class case preparation (self and group learning)

1. Conceptual Learning (CL)
2. Development of Analytical Skills (AS)

Case discussion (classroom learning)

3. Class Participation (CP)
4. Case Analysis (CA)
5. Real life decision-making (RDM)
6. Functional Knowledge (FK)
7. Functional Skills (FS)

Instructor Effect

8. Diversity of Perspectives provided/moderated by Instructor(DP)
9. Instructor Preparedness (IP)
10. Instructor Facilitation (IF)

Since the initial numbers of independent factors were too high, an Exploratory Factor Analysis (EFA) was necessitated to get reduced number of variables. An online version of questionnaire was sent by email to all 307 students of PGP 2007 batch. They were asked to respond to the above mentioned factors, based on the importance they attached to each attribute towards case based learning in the classroom. A standard 7–point Likert scale response format was used to measure the attitude of PGP students towards each of the ten variables(1-Least favorable ;7-Most favorable). A total of 40 responses were received, out of which 36 (females constituted 16.67% of the respondents) were found usable for further analysis. The low response rate is attributed to the short time frame during which (1 week) the responses were solicited, and it is a major limitation of the study. Since the purpose of our study is not to generalize the obtained results, but is rather exploratory in nature, the errors that creep in due to small sample size, is not expected to adversely impact the internal validity of the study substantially.

The data was analyzed with SPSS 13.0 using principal component analysis method with varimax rotation. Employing an extraction criterion of Eigen value being greater than 1.0, 4 factors were extracted, as shown in table 1.1 in appendix. The total variance explained by each of the four factors is also shown in table 1.2. The total variance explained by the four factors combined is 78.2 %, which is acceptable in this context. In our study, only the first 3 factors have been taken and they together explain 68% of the total variance, which is quite acceptable. These 3 factors are shown below in table 2.

Table 2
Factor loading of variables

Factor 1 Involvement (I)	Factor 2 Domain Knowledge (DK)	Factor 3 Source Congruity (SC)
CP	FK	DP
CA	FS	IF
RDM		IP

The variable IP has been arbitrarily but purposefully allotted to Factor 3, to include it in our study, even though it was equally loaded on factor 4. Other variables were purely loaded on the 3 factors. Based on the insight gained from our exploratory study, the 3 factors have been named as shown in the table 2. We now explain the rationale behind naming each of these factors.

Factor 1 consists of class participation (CP), Case Analysis (CA) and Real life Decision-making (RDM). Taken together, these mean that perceived learning from classroom participation and interaction would depend on how involved the student is in the classroom discussion and interaction or his '*Involvement*'. Factor 2 consists of Functional Knowledge and Functional Skills (FK and FS), which together constitute the '*Domain Knowledge*'. In other words, this factor accounts for the perception that learning should be associated with some upgradation or development of functional skills in an individual. Factor 3 consists of Diversity of Perspectives (DP) and Instructor Facilitation and Preparedness (IF, IP). These constitute integration of divergent views by the classroom instructor. The learning in such environment is a function of the '*Source Congruity*' of the instructor as viewed by the student.

This exploratory study results calls for further empirical validation to determine the impact of each of these on students' learning through case study-based pedagogy. Hence the above results can be denoted as:

$A_{CM} = f(I, DK, SC)$; where A_{CM} denotes Attitude towards Case method (of Learning). In a Linear Regression Model form, it can be represented as: $A_{CM} = \beta_1 I + \beta_2 DK + \beta_3 SC + \epsilon$.

The call for empirical support for the above model to test the significance of the coefficient betas is left for future research work and is currently out of the scope of our study. However we have enough support from advertising literature, in order to strengthen the above proposed model, which we would be discussing in the next section.

Evidence from Advertising Research

Advertising is one of the most widely used tools of communicating with customers among both the consumer and industrial products marketing firms. Even though the precise impact of advertising on sales is not fully determined, yet marketers are unanimous that, advertising builds beliefs among customers in short to medium term and attitude in the medium to long run, motivating them to choose a particular brand/s and product/s, over all others.

The proposed model will now be discussed by making analogous comparisons between case method as a communication pedagogical tool in the classroom between Instructor and the students and advertising as a communication tool between advertisers and consumers using media like print, TV and Internet. It is here that we find lot of valid support for our model and we justify our reasons for choosing the realm of advertising, and more specifically the research carried out on understanding the consumers' responses to advertising. Our assumptions and results are derived from the relevant inferences based on drawing meaningful analogies between the two modes of communication.

Source Congruity

In the advertising research literature, source congruity is defined as the degree of match between the endorser and the brand attributes (Kirmani and Shiv, 1998). Studies have found that source congruity positively impacts brand attitudes when issue-relevant

elaboration is high. In the context of our study we find support to the extent that higher Instructor congruity or integrity would enhance attitude towards course learning in general in the presence of higher classroom participation and discussion (elaboration), which is again Instructor driven and is a function of his or her style of moderating the case discussion in the classroom.

Literature supports the view that the source may be used at times as a persuasive argument (Cacioppo, 1986; Petty et al, 1983), especially when the source provides information critical to the evaluation of an issue (Kirmani and Shiv, 1998). Source congruity is likely to emanate from such source characteristics as trustworthiness, attractiveness, expertise or credibility (Kirmani and Shiv, 1998).

In the context of case-based learning in the classroom, we can draw an analogy with the above findings and hypothesize that an instructor who is perceived as more trustworthy, credible and enjoying expert power is likely to lead to a favorable attitude towards case-based learning. This leads to the following three hypotheses:

H1: Higher instructor trustworthiness would lead to more favorable attitude towards case-based learning.

H2: Higher instructor credibility would lead to more favorable attitude towards case-based learning.

H3: Higher expert power of the instructor would lead to more favorable attitude towards case-based learning.

Involvement

Involvement in marketing literature is conceptualized as consisting of characteristics of the person, situation and the stimuli. Any or all of them can impact the level of involvement with the stimulus (Zaichkowsky, 1986; Bloch and Richins, 1986). In the context of advertising, involvement is defined as:

“person’s perceived relevance of the advertisement based on inherent needs, values and interests” (Zaichkowsky, 1985).

In the context of our study, we suggest that perception of relevance of the message (learning) through case approach depends on the how far it matches the needs, values and interests of each individual class participant. If the case study enhances the perceived value of learning, which would further increase a class participant's employability in the job market (as perceived by the student), then it would lead to higher involvement of the student in all the 3 phases of case approach.

Involvement consists of both cognitive (or utilitarian) motive and affective (or value-expressive) motive (Park and Young, 1986). It is essentially a motivational construct and depends on person's values and needs (Zaichkowsky, 1986). Involvement of consumer with information as a stimulus has also been conceptualized as the motivation to process information (Bloch and Richins 1983; Burnkrant and Sawyer 1983; and others). A similar construct, 'felt involvement' has been referred to in behavioral literature variedly as: *message-processing involvement* (Petty and Cacioppo, 1981); *audience involvement* (Greenwald and Leavitt, 1984), and *response involvement* (Houston and Rothschild, 1978). Drawing a parallel with the classroom situation, the following hypothesis is proposed:

H4: Higher Felt Involvement of the student would lead to more favorable attitude towards case-based learning.

Domain Knowledge

Domain knowledge is the general semantic and episodic knowledge regarding the product. This affects comprehension and the specific meanings produced during elaboration. Both develop concurrently in long-term memory as consumers' experiences with the product accumulate (Celci and Olsen, 1988).

Sujan (1985) proved that an individual's prior knowledge or "expertise" affects their evaluation processes. She also found that knowledge impacts evaluation processes independent of involvement and increases the amount of processing. Hence, both felt involvement and domain knowledge independently impact behavior and cognition.

In the context of the study, we suggest that domain knowledge pertaining to specific courses or subjects that is discussed in the classroom is one of the key determinants of the learning process. Higher is the domain knowledge of an individual student on a specific subject on which case is being discussed, higher the chance that he has a more favorable attitude towards the case learnings.

The above review of advertising literature establishes that the message processing of consumers towards advertisements can be conceptually compared to that of students' processing of the message (in the case study) before-during-after classroom situations, and the cognitive processing and behavior as an outcome depends on his/her personal felt involvement (motivation to process), domain knowledge (ability to process) and the source congruity (of the instructor). These three predictor variables have been shown to impact the message processing of advertisements in case of consumers. In this study, they similarly lead to learning as a result of message processing, comprehension and evaluation processes. The cognition and behavior outcomes directly impact the student's learning. Based on the above discussion the following hypothesis is drawn:

H5: Higher Domain Knowledge would lead to more favorable attitude towards case based learning.

Conclusion

The study provides several interesting hypotheses with far reaching managerial and academic implications. First, the insights from research in advertising and consumers' response to it, adds valuable inputs to our extant understanding about case based learning in classroom. As mentioned before, the results of this study bring the control on the classroom learning closer to the pedagogy designers, administrators, and the business schools. However, only empirical validation of the above hypotheses can conclusively prove or disprove whether the students' behavior in classroom is similar and comparable to an exchange process occurring in the market (such as evaluating products in a store prior to making a purchase). The study's importance lies in importing cross-disciplinary knowledge available in the consumer behavior literature. Notably, our study has probably for the first time, attempted to draw an analogy between a teaching case study and an advertisement as two commensurate tools of communicating message, albeit using

different media, yet quite similar in approach and expected outcomes. However it is plausible that the results obtained may not be unique to case based approach. Somewhat similar results may also show up for lecture-based classroom pedagogy; the investigation of this research question is however left for as a work for future researchers.

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Appendix: EFA Results (SPSS 13.0 Output)

Table 1.1-Rotated component matrix

	Component			
	1	2	3	4
CL	.313	.207	-.187	.732
AS	.018	.047	.320	.820
CP	.575	.376	-.015	.471
CA	.896	.073	.115	.082
RDM	.791	.216	.227	.199
FK	.261	.888	.087	.154
FS	.082	.891	.233	.156
DP	.036	.070	.807	.345
IP	.483	.480	.486	-.100
IF	.269	.254	.797	-.148

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 13 Iterations.

Table 1.2-Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.266	42.664	42.664	4.266	42.664	42.664	2.238	22.379	22.379
2	1.411	14.115	56.779	1.411	14.115	56.779	2.120	21.204	43.584
3	1.114	11.142	67.921	1.114	11.142	67.921	1.786	17.857	61.441
4	1.029	10.294	78.215	1.029	10.294	78.215	1.677	16.774	78.215
5	.582	5.821	84.036						
6	.514	5.137	89.173						
7	.398	3.977	93.149						
8	.294	2.936	96.085						
9	.222	2.223	98.308						
10	.169	1.692	100.000						

Extraction Method: Principal Component Analysis.