TECHNOLOGICAL ADOPTION IN THE PHILIPPINE ADVERTISING INDUSTRY

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This study was conducted in order to determine how technology for the production of television advertisements is adopted in the Philippine advertising industry. An analysis of the industry structure showed that digital technology acquisition and adoption are more the concerns of commercial production and post-production houses than of advertising agencies, which subcontract most of the work to these advertising suppliers. A test of two technology adoption models showed that the psychographic model, more than the benefit-cost model, better reflected the decision making process involved in the acquisition and adoption of digital technology. Results show importance and productivity are the better predictors. Perceived importance of the new technology is the primary consideration, while factors such as price and effect on quality and productivity appear to play a secondary role.

INTRODUCTION

Several models of technology adoption and diffusion have been put forward by various authors. A number of these models seek to predict the success of given technologies in terms of whether firms will decide to adopt them, and the extent to which they effectively spread from the initial user to the rest of the organization.

According to Norton and Bass (1992), potential adopters of new generations of technologies do not necessarily adopt the technologies *immediately*, even if such technologies offer clear advantages. There is normally a lag time between the introduction of these new generations of technologies and the time it takes for most of the potential adopters to switch to the new product. Norton and Bass claim that

a diffusion process sets in, as the market adapts and learns of the benefits that could be derived from the new technology. The diffusion model advocated by Norton and Bass describes the time it takes for a new technology to be adopted. It is represented mathematically by the following function:

$$F(t_i) = [1-e^{-(p+q)t}_i]/[1+(q/p)e^{-(p+q)t}_i]$$

where t_i denotes the time since the introduction of the ith generation. The parameters p and q denote the rate and shape of the growth of the curve described by F(t_i). Norton and Bass found that this model did define some of the relationships that govern demand and new generations of technologies.

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The study by Cooper and Zmud (1990) focused on production and inventory control information technologies. examined the interactive effect of two contextual factors - task and technology characteristics - on the implementation of Manufacturing Resources Planning (MRP) information systems. Cooper and Zmud hypothesized task-technology that compatibility and complexity are related to the likelihood of MRP adoption. Using a random cross-sectional sample of MRP implementors, and applying a logistic regression model, they found that tasktechnology compatibility is indeed a major factor accounting for the decision to adopt MRP. They found that MRP adoption is more likely under the following conditions: manufacturing methods are continuous; the company has a make-to-stock strategy; there is a large number of bill of materials levels; and there is a low average number of parts. According to Cooper and Zmud, the main implication of these results for IT implementation theory is that there are manufacturing environments for which MRP is systematically not adopted.

Agarwal, et. al., (1991), on the other hand, highlight the importance of minimizing risk associated with the introduction of new technologies. They cite problems arising from lack of experience on the part of personnel on the use of the new technology, failure of the new product to meet expected results, and the high cost of maintenance. User assimilation of the new technology is an important consideration which should not be overlooked. Agarwal, et. al., suggest that for any new technology to be effective, it must be consistent with the ideology and overall operating philosophy of the user organization.

Another study, by Pennings and Harianto (1992), examined the propensity of organizations to adopt technological Focusing on two sets of innovations. namely: innovation factors. external networking and accumulated know-how, the authors investigated the success of information technology infusion in the banking sector. commercial hypotheses were tested: (1) that the more firms have accumulated experiences in computer and telecommunication areas, the higher the likelihood that they will embark on video banking services; (2) the higher capital investments in the systems and equipment, or their derived productivity index, the more likely that the firm will engage in video banking services; and (3) the more that banks have developed firms from interfirm linkages with computer, telecommuni-tions, stock brokerage. insurance, other and transactional providers, the more likely they will venture into video banking services.

Penning and Harianto had a sample consisting of 152 of the largest 300 banks in the U.S. The study covered the period 1977-1987. Using the logistics regression method, the authors specified the following model:

$$Log P/(1-P) = B_o + \Sigma B_i(t)$$

The results of the study show that the accumulation of information technology experiences and interfirm networking is conducive to innovation and speeds up the rate of diffusion of the technology within the organization, clearly supporting the first and third hypotheses. On the other

hand, the second hypothesis was not substantiated.

THE STUDY

The framework of the present study is based on two models of technology diffusion: a psychograhic model proposed by Moore (1991), and a traditional benefit-price model. The research is patterned after the study conducted by Taylor, Moore, and Amonsen (1994).

Objectives of the Study

The primary objective of the study is to determine which of the two models, psychographic or benefit-price, is able to better predict the technology adoption behavior of advertising suppliers² for digital technology³. Specifically, the following competing hypotheses were tested:

Hypothesis 1. Psychographic variables are stronger predictors of the decision to adopt digital technology than benefit-price variables.

Hypothesis2. Benefit-price variables are stronger predictors of the decision to adopt digital technology than psychographic variables.

Conceptual Model

In order to substantiate the above hypotheses, five propositions have been formulated, three of which are associated with the *psychographic model* and two, with the *benefit-price model*. These propositions are briefly discussed below, along with the corresponding operational variables.

Psychographic Model

The psychographic model assumes that the decision to adopt a new technology is a function of the decision maker's risk attitude and his perception of the importance of the technology to the business. For purposes of measure-ment, these two variables are coded on three levels:

Risk attitude toward new technology

Low : risk averse

Medium

• High : risk seeker

Perception of importance of the new technology

• Low : not critical

Medium

• High : very critical

The corresponding propositions are as follows:

Proposition 1: The higher the level of risk seeking, the more likely a firm will acquire and adopt digital technology.

² Later in the paper, a distinction will be made among players in the local advertising industry. This categorization is important in analyzing patterns of technological innovation.

³ Among advertising suppliers, the use of either digital technology or analog technology defines the capabilities and reliability of editing equipment, and in turn, the quality of production and post-production services.

Proposition 2: The greater the perception of the importance of digital technology to the business, the more likely a firm will acquire and adopt the new technology.

Benefit-Price Model

The benefit-price model is based on the assumption that the decision to adopt a new technology is based primarily on the price of the technology and its effect on quality and productivity. As in the case of the psychographic model, these variables have been coded on three levels:

Price sensitivity

• Low : not sensitive

Medium

• High : very sensitive

Quality

• Low : not important

Medium

• High : very important

Productivity

• Low : not important

Medium

• High : very important

The corresponding propositions are:

Proposition 3: The less sensitive the firm is to the cost of digital technology, the more likely it is to acquire and adopt it. Proposition 4: The more important the quality of the output generated by digital technology, the more likely it is that the firm will acquire and adopt it.

Proposition 5: The more important productivity is to the firm, the more likely it is to acquire and adopt digital technology.

METHODOLOGY

The research methodology involved four major activities, namely: (1) collection of secondary data on the local advertising industry; (2) preliminary interviews with industry practitioners; (3) survey of advertising agencies; and (4) survey of advertising suppliers.

In February 1997, a questionnaire was mailed to the 68 members of the Association of Accredited Advertising Agencies (4As). A total of 17 agencies responded. A second questionnaire was sent in May 1997 to which another six agencies responded. This brought the total number of respondents to 23, translating to a response rate of 33.8 per cent. The questionnaire is shown as Appendix A.

After the results of the survey of advertising agencies were tabulated, a survey of advertising suppliers (production and post-production houses) was undertaken. A list of the members of the Advertising Suppliers Association of the Philippines (ASAP) was obtained, and personal interviews were conducted in April 1997.

Based on the results of the personal interviews of production and post-production houses, a third research instrument was prepared and faxed to the other advertising suppliers who were unable to grant personal interviews because of their busy schedules. This questionnaire is shown as Appendix B.

Instrument

The questionnaire for advertising suppliers include a list of statements to which the respondents were asked to agree or disagree. The intention is provide indicators for the variables necessary to be able to validate the propositions presented earlier. To summarize, the variables and corresponding statements are:

Psychographic Model

Risk attitude

We make sure that our company acquires the latest equipment or technology as soon as it become available. (Statement 1)

This statement is as indication that the firm is not wary of the possible risks associated with a new technology, and is willing to acquire it even in the absence of a track record.

We always sell whatever equipment we replace. (Statement 2)

This statement somehow indicates that the firm may not be willing to purchase a new technology unless there is a ready buyer for the old one.

We buy equipment only from reputable manufacturers. (Statement 3)

Although this statement reflects a general attitude among business firms, a real *risk seeker* would be willing to try new technology even it is offered by a fairly new supplier.

We invest only in equipment or technology that has been proven superior. (Statement 4)

A firm that makes this statement will clearly not lead in the use of the technology. It may be necessary for a number of firms in the industry to try the technology before the company will be convinced about its appropriateness for its own operations.

We make sure that the equipment we buy will not become obsolete for at least 3 years. (Statement 5)

This statement is an indication that the firm may be unwilling to try a new technology unless it has a proven track record

We first upgrade the equipment then train our people to handle them. (Statement 6)

This statement indicates that the firm is willing to risk delaying the application of the new technology if training of company personnel can not be done quickly.

Perception of Importance

We upgrade our equipment only when the jobs that we handle require it. (Statement 7)

This statement clearly indicates that a major factor in the decision to acquire and adopt a new technology is its perceived importance in the performance of the firm's primary tasks.

We use old equipment for less demanding jobs. (Statement 8)

This is both a positive and negative statement with respect to acquisition of new technology. It somehow implies that the company would go for new technology for major jobs. On the other hand, it is also a reflection of the extent to which this new technology will be diffused immediately throughout the organization.

We consider technological superiority as a potent competitive advantage. (Statement 9)

A statement such as this comes from a company that will not hesitate to adopt a new technology earlier than others, in order to gain the lead.

We believe that the man behind the machine is more crucial than the equipment nor the technology.

(Statement 10)

This is a statement from a firm who may think twice before acquiring a new technology because greater importance is given to whether the new technology can be rendered useful given the capabilities of its personnel.

Benefit-Price Model

Price Sensitivity

We don't really consider the cost when it comes to improving our technical capabilities. (Statement 11)

This is a statement from a firm which is not very sensitive to the price of the new technology.

Quality

We try to build a reputation for quality output through constant improvement in our technical capabilities. (Statement 12)

This statement indicates the relationship between producing quality products and services and the acquisition of new technology.

Productivity

We give considerable importance to how well new equipment/technology will improve our productivity. (Statement 13)

This statement indicates the relationship between productivity improvement and the acquisition of new technology.

The correlation between the variables defined in the preceding section and the adoption behavior (adopter or non-

adopter) were determined. Since the responses from the interviews were coded using an ordinal scale, the χ^2 test was applied to test the levels of significance of the resulting statistics.

Stepwise regression was also performed in order to address the primary objective of the study, which is to determine which of the two models of technology adoption is able to predict the technology adoption behavior of advertising suppliers.

RESULTS

Structure of the Philippine Advertising Industry⁴

From initial data gathering and interviews with the industry practitioners we found that the advertising industry is composed of advertising agencies and support groups, as well as the different media. These are defined as follows:

Advertising Agency - a service organization or association which is established and operated for the purpose of counseling on, creating, producing, and/or implementing advertising programs for and in behalf of advertisers in various forms of media

Advertising Support Groups or Advertising Suppliers - entities or persons, other than advertising

agencies who supply, produce, or provide the materials or services for the creation and production of advertisements or the implementation of public relations programs, such as writers, art studios, consultants, photographers, job printers, talents, talent agencies, audio-visual producers, phototypesetters/photoengravers, and research firms

Media - any means of mass communication used to disseminate information or messages publicly, including television/cable television, radio, magazines, newspapers, cinema, or outdoor signs.

The industry is not complete without the advertiser who is the person or entity on whose account or for whom the advertisement is prepared and disseminated. Advertisers are usually the manufacturers or distributors of goods and services. Individuals and government institutions may also be part of an ad agency's clientele.

Profile of Advertising Agencies

Table 1 shows that the largest percentage of agencies surveyed (65.21 per cent) are classified as small, with annual billings below P300 million. Approximately 17.39 per cent are classified as medium, and 13.04 per cent are classified as large.

⁴ From "Nature and Scope of Advertising," published by the Advertising Board of the Philippines.

Table 1
Classification of Agencies by Size
(in terms of annual billings)

	No.	%
Small (Below P300 million)	15	65.21
Medium (P300 to P700 million)	4	17.39
Large (Above P700 million)	3	13.04
No answer	1	4.34
Total	23	100.00

Of the possible services that could be offered by an advertising agency, advertising strategy formulation appears to be the most generally offered (Table 2). This is followed closely by concept

development, concept execution, media plan implementation, and media plan monitoring. The least offered service is sales promotion implementation.

Table 2
Services Offered

	No.	%
Advertising strategy formulation	21	91.30
Concept development	20	86.96
Concept execution	20	86.96
Media plan implementation	20	86.96
Media plan monitoring	20	86.96
Special events conceptualization	19	82.61
Account planning	16	69.56
Sales promotion conceptualization	16	69.56
Client business analysis	15	65.22
Marketing strategy formulation	15	65.22
Special events implementation	15	65.22
Public relations services	14	60.87
Research	13	56.52
Sales promotion implementation	10	43.48
Other services ⁵	20	86.96

All 23 advertising agencies subcontract the actual production and post-production work when it comes to the actual creation

of television advertisements. Although a few claim to have some photography, audio recording, audio visual and

⁵ "Other Services" include computer design, broadcasting recording, events marketing, graphics and graphics design, direct marketing, marketing consultancy, audio-visual production, fund raising, convention management, and non-traditional media.

cinematography equipment, these are used for preliminary work on the commercials.

For post-production work, six agencies (26.09 per cent) send the materials abroad to countries, such as Hong Kong, Australia, Singapore, and Bangkok.

There appears to be no exclusive nor long term contract in place between the ad agencies and the suppliers. The projects are bid out as they come, and assuming quality standards are met, the contract is awarded to the supplier with the lowest cost.

When asked if they have plans of going into production and/or post-production work, only four agencies (17.39 per cent) expressed intentions of setting up their own departments, mainly to give their own people the convenience and flexibility to create more appealing ads. The rest of the respondents do not intend to integrate forward for various reasons, foremost of which is the expected cost of the undertaking (Table 3).

Table 3
Reasons for Not Going into Production/Post-Production⁶

Level, and the second	No.	%
Too expensive	11	57.89 ⁷
Existing suppliers are adequate	8	42.05
Not agency's expertise	7	36.84
No value-added	1	5.26
Fierce competition	1	5.26
Technology changes too fast	1	5.26

Advertising Suppliers

The original intention was to interview 40 production and post-production houses in the ASAP list. A personal interview guide was prepared, although the real objective was to conduct *unstructured* interviews in order to allow for a clearer description of how the industry operates. The semi-

structured interview guide is shown in Appendix D.

A total of 11 advertising suppliers were interviewed. Of these, eight were production houses and three were post-production houses.

⁶ The verbatim responses of the agencies are shown in Appendix C, for reference.

⁷ Figures are percentage of those who do not intend to forward integrate (19 or 23 - 4).

Production Houses

From the interviews it was noted that production houses basically implement the creative concept, also known as the storyboard, of the advertising agency which, in turn, was approved by the client or advertiser. The art director of the ad agency meets with the art director of the production house and once everything has been clarified, actual production starts.

About 95 per cent of the jobs handled by production houses are television commercials. The remaining five per cent include such as services as audio-visual presentations and feature film production.

A critical source of competitive advantage among production houses is the creativity of people. The art director, in particular, must be able to at least capture, or at best improve on, the original intention of the storyboard. This does not mean, however, that production houses can afford not to be updated in terms of technology. It appears that the respondents acknowledge that the entire industry is technology-dependent, but that production houses need not have the equipment themselves to remain As one respondent said, competitive. "Production houses are the think tank of ad agencies. They are paid for their creativity rather than their technology."

There are directors that only execute what the storyboard says. The really good ones improve, based on their creativity. But even the good directors are expected to do even better if they knew that there was an available technology that can translate what they can *imagine* into an ad.

It appears that if production houses decide to invest in equipment other than cameras, lights, and video equipment, the most logical choice would be editing equipment. And, as in other fields, the latest in terms of editing technology is digital technology.

Of the eight production houses studied, six (75 per cent) have digital equipment, one is analog-based, while the other one does not have its own editing equipment.

None of the respondents plan to go into post-production. Among the reasons cited are high investment requirement and the high risk of obsolescence. The job can be done better by post-production houses.

One respondent said, however, that there is really an advantage to being updated as far as technology is concerned. "In this industry, the one that can do the job the best and the fastest has the edge. This usually means being updated as far as the latest in technology. There is an incentive to upgrade because advertising agencies and advertisers are willing to pay. Their budgets increase by 30 per cent per year!"

Post-Production Houses

The interviews revealed that unlike production houses which basically offer the same service, post-production houses may be of different kinds. Of the three post-production houses included in the study, only one offers the full line of post-production services; one offers only audio post-production work; while the last one offers only film processing. The first two are already digital-based, while the film

processor sources its equipment from Kodak.

The main advantages of digital over analog technology are really the speed at which jobs are processed, as well as the quality of output.

Being highly technology-dependent, these post-production houses also recognize the risk of obsolescence. This is the reason why a careful return on investment analysis is also employed when deciding to further improve their equipment.

Faxed Survey

A total of 19 more advertising suppliers responded to the faxed questionnaire, bringing the total number of responding ASAP members to 30.

As shown in Table 4, a large number of the respondents (47.37 per cent) have both production and post-production capability. Table 5, on the other hand, shows that television commercials still constitute the bulk of jobs handled. Only four (or 21.05 per cent) of the 19 respondents are still analog-based (Table 6), but all expressed the intention

Table 4
Type of Advertising Supplier

	No.	%	
Production house	4	21.05	
Post-production house	6	31.58	
Both production & post-production	9	47.37	
Total	19	100.00	

Table 5
Type of Materials Handled

ule die.	No.	%	ELT n
Television commercials	15	78.95	
Audio-visual materials	11	57.89	
Other materials ⁸	9	47.36	

to upgrade to digital technology, primarily to be more competitive by improving the quality of their work. Those who are already into digitalization cite better quality of output and processing speed as the foremost advantages of digital over analog technology.

⁸ "Other materials" include animation/computer graphics, CD-ROM, concerts, TV specials, sports shows, music videos, educational materials, radio, MTVs, corporate videos, and film full length features.

Table 6 Technology Base

and the second	No.	%	all I
Analog	3	15.79	
Analog Digital	16	84.21	
Total	19	100.00	

When upgrading equipment, cost and technical superiority were cited as primary

considerations (Table 7).

Table 7
Considerations When Upgrading Equipment

r ri ri Lion	No.	%	
Cost	17	89.47	
Technical superiority	17	89.47	
Quality of output	16	84.21	
Usefulness	16	84.21	
Manpower/skills requirement	14	73.68	
Demands of the client	14	73.68	
Reputation of the manufacturer	12	63.16	
Brand name	8	42.05	
Service life	8	42.05	
Other considerations ⁹	7	36.84	

Chi- Square Analysis

The results of the chi-square analysis are presented in Table 8 (see next page). $\chi 2$ analysis was used to test whether the variables above are related to the

advertising supplier's decision to adopt digital technology. From the results of the χ^2 analysis we derive one important observation. The behavior among

⁹ "Other considerations" include service support, availability of parts and service, productivity improvement, financial scheme, speed/reliability, capability to do special effects, upgrade capability, return on investment, and profitability.

Variable	Statement No.	χ^2
Risk attitude	1	0.407
	2	0.426
	3	0.929
	4	0.002
	5	0.265
	6	5.839*
Perception of	7	1.132
importance	8	4.898*
-	9	5.728 [*]
	10	0.143
Price sensitivity	11	2.615
Quality	12	0.002
Productivity	13	**

Table 8
Results of Chi-Square Analysis

advertising suppliers with respect to the decision to acquire and adopt digital technology seem to be more consistent with the psychographic model than the benefit-price model. The only relationships which have been found significant are those associated with risk attitude (Statement and perception importance of the new technology (Statements 8 and 9).

Stepwise Regression

To answer the research hypothesis, stepwise regressions were used (see Table 9). Using the thirteen elements listed in the section "Instrument", five scales corresponding to the independent variables in this study were developed. Scales for the dependent variable, the adoption of

new technology, were likewise developed.

Three runs of stepwise regression were The first was a test of the two made. variables of the psychographic model; the second test of the three variables of the benefit-price model; and the third, of all the five variables together. It appears that when the variables of each of the two models were tested separately, perception of the importance of new technology and the productivity of the equipment were the better predictors of adoption of new technology. However, when all five variables were tested, the perception of importance of technology came out as the best predictor of new technology adoption. Therefore, the results show that the psychographic model is the better predictor of the adoption of new technology of advertising suppliers.

^{*} Value is significant at 90% level of confidence (α =0.10); χ^2_{α =0.10} = 4.60157.

 $[\]chi^2$ was not calculated; all respondents strongly agreed with the statement.

Table 9
Results of Stepwise Regression

Run	Variables Tested	Variable Entered	Multiple R	Significant Test
1	Risk Importance	Importance	.62	.005
2	Price Quality Productivity	Productivity	.51	.03
3	Risk Importance Price Quality Productivity	Importance	.62	.005

CONCLUSION

This study was conducted in order to determine how technology for the production of television advertisements is adopted in the Philippine advertising The initial research on the industry. industry structure showed that in addition to the advertising agencies, who were originally the target respondents, a critical player in the creation of television advertisements are the production and post-production houses, also known as advertising suppliers. It turned out that the question of digital technology acquisition and adoption is more relevant among this group than among advertising agencies, who we found, sub-contracted most of the production and post-production work. And it is in these stages of TV ad creation

that digital technology is most crucial.

Two technological adoption models- the psychographic model and the benefit-cost model- were tested to determine which one better reflects the pattern of adoption of digital technology among advertising suppliers. Results show that psychographic model is the better predictor of digital technology adoption. specifically, local advertising suppliers have a greater tendency to decide on technology acquisition on the basis of the perceived importance of the new technology. On the other hand, considerations such as the perceived risk, cost of new technology, and effect on quality and productivity, though important, play only a secondary role.

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	Technological Innovation in the Philippine Advertisi	ng Industry
4.	Production Capability: Post-Production of Television Advertisement	nts
	Post-production of television advertisements is done:	
	1 In-house (Please proceed to the next question) 2 Sub-contracted to: Question 5)	(Please indicate name of company, then proceed to
	Please enumerate the main equipment and/or technology (include computer advertisements.	software and hardware) used in the production of television
	Photography	
	Audio Recording	
	Audio Visual	
	Other Equipment/Technology	
5.	Do you have any plans of creating your own production/post	-production department?
	1 Yes, because	
	No, because	

Agency Background

58

Name of Agency
Address
Telephone Number(s) Fax Number
No. of years in operation
Position of Respondent
Date

THANK YOU VERY MUCH!

Appendix A Questionnaire for Advertising Agencies

Please indicate your answer(s) by encircling the number corresponding to your choice.

2.

3.

	ssification By Size erms of annual billings)		
1 2 3	Small Medium Large	(Below P300 million) (P300 to P700 million) (Above P700 million)	
	vices Offered ase encircle all that appl	ly)	
1 2 3 4 5 6 7 8	Client business analys Marketing strategy for Advertising strategy for Concept development Concept execution Media plan implement Media plan monitorint Account planning	rmulation ormulation tation	
9 10	Research Public relations (PR): Sales promotion concep	services tualization	
12 13 14	Sales promotion imple Special events concep Special events implem	ementation tualization	
15	Other services		
Pro	duction Capability	: Production of Television Advertisements	
Proc	duction of television adv	vertisements is done:	
Proc	In-house Sub-contracted to:	(Please proceed to the next question)	
1	In-house		
1 2 Plea	In-house Sub-contracted to:	(Please proceed to the next question) (Please indicate name of company, then proceed to	the production of television
1 2 Plea adve	In-house Sub-contracted to: use enumerate the main dertisements.	(Please proceed to the next question) (Please indicate name of company, then proceed to Question 4)	the production of television
1 2 Plea adve	In-house Sub-contracted to: use enumerate the main entirements. stography	(Please proceed to the next question) (Please indicate name of company, then proceed to Question 4) equipment and/or technology (include computer software and hardware) used in the second s	the production of television
1 2 Plea advo	In-house Sub-contracted to: ase enumerate the main electrisements. otography	(Please proceed to the next question) (Please indicate name of company, then proceed to Question 4) equipment and/or technology (include computer software and hardware) used in the proceed to Question 4.	the production of television
1 2 Plea advo	In-house Sub-contracted to: ase enumerate the main electrisements. otography	(Please proceed to the next question) (Please indicate name of company, then proceed to Question 4) equipment and/or technology (include computer software and hardware) used in the proceed to Question 4.	the production of television
1 2 Plea advo	In-house Sub-contracted to: ase enumerate the main entirements. bytography dio Recording	(Please proceed to the next question) (Please indicate name of company, then proceed to Question 4) equipment and/or technology (include computer software and hardware) used in the proceed to Question 4.	the production of television
1 2 Plea advo	In-house Sub-contracted to: ase enumerate the main electrisements. otography	(Please proceed to the next question) (Please indicate name of company, then proceed to Question 4) equipment and/or technology (include computer software and hardware) used in the proceed to Question 4.	the production of television
1 2 Plea advo	In-house Sub-contracted to: ase enumerate the main entirements. bytography dio Recording	(Please proceed to the next question) (Please indicate name of company, then proceed to Question 4) equipment and/or technology (include computer software and hardware) used in the proceed to Question 4.	the production of television

Appendix B Questionnaire for Advertising Suppliers

Please encircle the number corresponding to your choice.

1.	ly	pe of Advertising Supplier
	1	Production House
		Do you also plan to go into post-production work?
		Yes, because
		No, because
	2	Post-Production House
		2a Audio post-production only
		2b Video post-production only
		2c Both audio and video post-production
		Do you also plan to go into production work?
		Yes, because
		No, because
	3	Production & Post-Production House. Expertise is:
		3a More in production work
		3b More in post-production work
		3c About the same in both production and post-production work
2.	Ту	pe of Materials Handled
	1	Television commercials
	2	Audio-visual materials, documentaries
	3	Other materials
3.	Te	chnology Base
	1	Analog
		Do you plan to go into digitalization?
		Yes, because
		No, because

2	Digital
	What do you think are the main advantages of digital over analog technology? (Please encircle all that apply.)
	2a Quality of output 2b Processing speed (e.g. editing) 2c Cost 2d Other advantage(s)
	nsiderations When Upgrading Equipment ease encircle all that apply.)
1 2 3 4 5 6 7 8 9	Cost Technical superiority Quality of output Usefulness Reputation of manufacturer Brand name Service life Manpower/skills requirement Demands of the client Other considerations
eq	hich of the following statements best describe your organization's policy with regards upgrading of uipment or technology? ease encircle all that apply.)
1 2 3 4 5 6 7 8 9	We make sure that our company acquires the latest equipment or technology as soon as it becomes available. We always sell whatever equipment we replace. We buy equipment only from reputable manufacturers. We invest only in equipment or technology that has been proven superior. We upgrade our equipment only when the jobs that we handle require it. We use old equipment for less demanding jobs. We first upgrade the equipment then train people to handle them. We don't really consider the cost when it comes to improving our technical capabilities. We make sure that the equipment we buy will not become obsolete for at least 3 years. We consider technological superiority as a potent competitive advantage.
Compa	ny Background
Address Telepho No. of y Position	Company

THANK YOU VERY MUCH!

Appendix C Reasons for Not Going into Production/Post-Production (Verbatim Responses)

- There is no added value in terms of delighting clients.
- Too big an investment. Would rather beef up research capability.
- Not agency's line of business.
- Investment need to put up a production house/post prod shop is too high.
- There are already quite a few prod and post prod shops that are very reliable, good, and reasonable (costs).
- · Pre and post production of course, the actual shoot of a TVC is expensive to get into, equipment, computer software changes too quickly.
- This is an entirely different business and industry.
- Equipment/manpower is expensive. But left to commercial houses who have the necessary production/post production volumes.
- It's not our business, can never be experts.
- The competition is fierce and for you to survive, you must possess much needed equipment so you don't have to rent. Doing this would require massive infusion of capital as film cameras and lights cost too much.
- There are already too many "suppliers" in the market each with their own loyal clientele. You must have at least three loyal agencies who do all their work with you just so you can survive till next year.
- This is capital intensive. Besides this is not the job of an advertising agency. In fact, an ad agency is not supposed to own an advertising supplier or media company.
- It's more practical (less expensive and more convenient) to sub-contract.
- It is capital intensive and maintenance intensive.
- The investment is substantial and the technical know how is available.
- The thrust of the agency is to build brands by conceptualizing big ideas. There are experts in the field of TV production and post
 production and they should be left to do that.
- But an editing suite, most probably.
- It is a highly specialized field and costly to set up and maintain. It would be ideal though to create our own post prod department for faster turn around and better work efficiency.
- Will only duplicate current suppliers' capability/expertise.
- It is better to use other companies who can specialize in the work.
- The demands of having an in house production/post production department are too great.
- Besides, our suppliers are doing a good job already. As an agency, we want to stay focused and by lean and mean.
- . No agency at the moment (I believe) do their own (in house) post prod (video). Although some have print post production facilities.
- An advertising agency normally has a broadcast production department who primary responsibility is to bid out projects, i.e., television or radio commercials, coordinate the selection of the production company and supervise the project so that it is delivered within the budget and on time. And of course, to the standard of excellence that is expected. The actual production (i.e., shooting, posting, etc.) is contracted to the production company.

Appendix D Interview Guide for Advertising Suppliers

We are doing a study of the process of producing television advertisements, with particular focus on the use of technology. We started by conducting a survey of the members of the 4As. We are now doing interviews with member-companies of ASAP.

For Production Houses

- As a production house, do you merely execute the storyboard provided by the advertising agency, or does the storyboard also come from you?
- Do you also handle production of materials other than TV commercials, such as audio-visual presentations and documentaries?
- What proportion of you work are commercials compared to non-commercials?
- The ASAP lists other types of suppliers, such as photographers, audio-recording houses, audio-visual producers, and graphics designers. Do production houses also offer the services of these other suppliers?
- Do you consider your company technology-dependent?
- How crucial is technology in what you do?
- If ever a new kind of equipment or technology became available, would you make sure that you updated with such latest technology? Why or why not?
- What are your basic considerations when upgrading your equipment?
- Just like so many other industries, they say the in-thing now in the advertising industry is digitalization. Are you already into this, or are you still analog-based? If yes, what are the advantages of digitalization? If no, do you plan to go into digitalization? Why or why not?
- At the pace production equipment are being upgraded, obsolescence is very high. What do you do with all the equipment that you replace? Is there any industry that can "inherit second-hand equipment? Which is this?
- Do you also plan to go into post-production? If yes, why and when? If no, why not?
- Who sets the pace as far as technological improvements are concerned?

For Post-Production Houses

- Post-production houses are supposed to do the finishing touches on TV advertisements. What kind of finishing touches are these? Which of these services does your company offer?
- The ASAP lists other types of suppliers, such as photographers, audio-recording houses, audio-visual producers, and graphics designers. How different are post-production houses from production houses and these other suppliers?
- Do you consider your company technology-dependent? How crucial is technology in what you do?
- If ever a new kind of equipment or technology became available, would you make sure that you were updated with such latest technology? Why or why not?
- What are your basic considerations when upgrading your equipment?
- Just like so many other industries, they say the in-thing now in the advertising industry is digitalization. Are you already into this, or are you still analog-based? If yes, what are the advantages of digitalization? If no, do you plan to go into digitalization? Why or why not?
- At the pace production equipment are being upgraded, obsolescence is very high. What do you do with all the equipment that you replace? Is there any industry that can "inherit second-hand equipment? Which is this?
- Who sets the pace as far as technological improvements are concerned?