

The Pay-per-View Experience: Insights from a Field-Experiment

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Introduction

The rise in television services has been dramatic in recent years. Consumers are no longer dependent on viewing commercially supported programming and are approaching television viewing in a different manner. Television services have been termed "The New Television" (Rothe, Harvey, and Michael, 1982) and "The New Media" (Kaatz, 1985). Consumption of programming has been rearranged with a high degree of segmentation (Rothe, Harvey, and Michael, 1982; Webster, 1983; Sparkes, 1983).

The television is now a multichannel monitor that offers more than the traditional network or local programming fare. Consequently, viewing has not remained stable; network shares have declined from a combined 91% in 1976 to 77% in 1986. For homes subscribing to cable television, the total network prime-time share has dropped even more dramatically to 66% (Nielsen, 1986). During 1976-1986, cable penetration rose from 16 to 60%. In the same period, pay cable (e.g., HBO and Showtime) penetration rose from 5 to 25%. VCRs have penetrated over one-third of U.S. households (National Demographics and Lifestyles, 1986).

These new television services represent one aspect of new information technology in marketing. The adoption of computer technology by consumers (Dickerson and Gentry, 1983) represents a companion change in the means by which consumers will search for, evaluate, and purchase new products.

The recent increase in cable television in-home shopping represents another area in which consumers are restructuring the purchase experience

and challenging traditional retailing practices—perhaps challenging our understanding of the consumption experience itself. As in-home shopping and purchase technologies become increasingly sophisticated, our understanding of how consumers utilize these technologies lags farther behind.

One new form of information technology that promises to complement as well as enhance existing television technology is interactive cable television (ICT). ICT differs from existing technology in that it allows for two-way transmission of information, transforming television from a passive to an active role in the purchase process. With ICT, consumers can inquire about the availability of products and services through on-line data bases or directly purchase products through cable channels such as the Cable Value Network or Home Shopping Network.

One form of ICT that has recently been introduced is Pay-per-View (PPV) programming. Unlike traditional premium cable channels (e.g., HBO or Showtime) which utilize one-way transmission at a flat monthly fee, PPV utilizes two-way transmission to purchase individual programming, often at a time more consistent with the consumer's schedule.

Because PPV requires individual purchases on a more interactive basis than traditional network/broadcast and cable programming, a study was conducted to gauge the effects of this technology on traditional consumption patterns. In order to more fully examine the impact of this new form of ICT, segments of consumers differing in their prior adoption of television services were asked to evaluate the PPV services. We offer a conceptualization to explain the adoption and utilization of this new fare of media services; and, finally, we report the results of a field experiment designed to assess consumer reactions to this new form of television technology.

Direct Impact on Advertising Decisions

The decline in network viewing has impacted the purchase of broadcast advertising. Almost all of the top 200 brands have started to use some form of national cable advertising. In 1985 advertising revenues were \$735 million and 1986 estimates are slightly under \$1 billion (Krugman and Rust 1987). Eighty-five percent of these revenues are national.

Marketers recognize that different viewing patterns may occur with regard to new television services. Cable advertisers have been willing to experiment with longer and more directed formats that are more in line with changing viewing patterns (Kaatz, 1985; Jones, Baldwin, and Block, 1986). Radio is now experiencing competition from select cable channels for advertising dollars. Prior to the development of cable, radio was the only major broadcast vehicle offering highly selective markets.

A paucity of good cable audience research data has made it difficult to assess the use of cable advertising. Nielsen has now moved to a totally

automated format in order to help remove viewer confusion over the multitude of channel offerings.

There is increased speculation that premium cable services which have not utilized any advertising will be doing so in the near future (Bogart, 1986; Krugman and Barban, 1980). This would allow for a different form of broadcast advertising.

Large Revenues

Cable and pay cable revenues were \$8.3 billion in 1986. Those same revenues were \$2.2 billion in 1980. Cable revenues are projected to be \$13.5 billion by 1990.

What is most intriguing to industry observers is the rapid diffusion of VCRs. Since introduction in 1976, they have reached a penetration of 31%. The largest growth period occurred between 1982-1985. Pay-per-view (PPV), the industry's newest service, is now being viewed as a major revenue source. While revenues were only \$40 million in 1985, projections place PPV revenues to reach one billion dollars within the next five years (Trachtenberg, 1985). This may be due to PPV offering viewers the opportunity to purchase programming on an individual basis.

New Forms of Industry Competition

While the market for new television services continues to grow, there is concern that penetration is beginning to mature and stabilize. More sophisticated marketing techniques for product development and promotion are becoming a requisite for success.

Previously, the market had been viewed as traditional broadcasters versus cable-oriented services. This is no longer the case. There is increasing competition within the market for new television services. Pay cable and the VCR industry are beginning to compete for consumer viewing time, entertainment dollars (Trachtenberg, 1985), and available programming (Lachenbruch, 1984; Kaatz, 1985).

Competition is beginning to occur between regular pay cable services and the new PPV services (Childers and Krugman, 1987). Regular pay-services revenues (HBO, Showtime, The Movie Channel, Cinemax, etc.) have stabilized due to competition from VCR rentals. The cable industry is looking to PPV, with its more directed services, as a new factor for improving industry revenues.

Changing Consumption Requires New Study

It is no longer safe to assume that the knowledge generated for traditional television viewing remains valid with regard to new media services. If we

accept the premise that audiences are changing, we need greater insight into the selection and viewing process. Researchers investigating new media services have concluded that research is needed to assess changing consumption and to determine its impact. In a study on television audience segmentation, Domzal and Kernan (1983, p. 47) concluded, "The new technology—cable, STV, VCR—requires a richer understanding of audience segmentation since that is the key basis for efficacy."

While studying the use of cable television, Sparkes (1983) concluded that consumer reaction is complex and will require different measures over an extended period of time. Levy (1980, 1983) conducted several studies on the use of VCRs. In examining the role of VCRs and cable television, he concluded that new forms of viewing behavior are occurring (Levy, 1983) and that audiences using a VCR for recording and playback may be more "active" as opposed to "passive" in their approach to television (Levy, 1980).

The above researchers have acknowledged that new forms of consumption are occurring and that it behooves the field to better understand how new media services are utilized. However, there has been only a limited amount of research directed at understanding both the antecedents and consequences of their adoption. In part, this is due to the rapid development of these services and the difficulty of assessing the impact of both single and multiple adoption of this technology.

Conceptualizing New Media Use

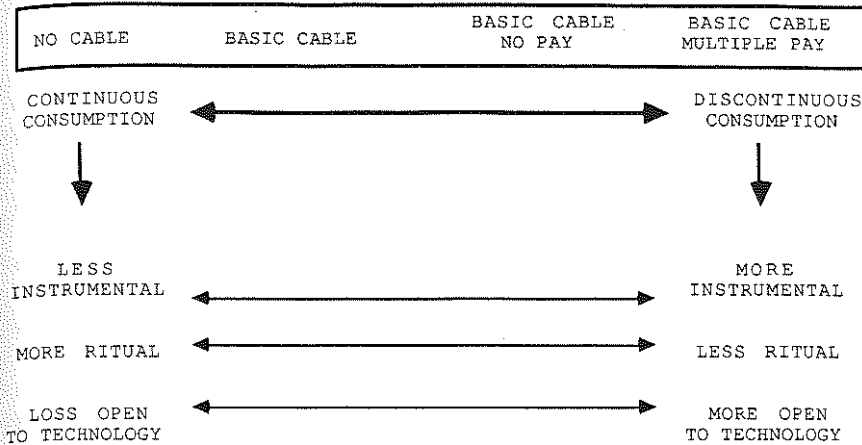
Innovativeness and related concepts are judged to be key determinants in the adoption of new television services and related products. Venturesomeness, the willingness to accept risks, has been defined as the salient value of innovativeness (Kirton, 1976; Rogers, 1976; Robertson, 1971).

Ettma (1984) noted that innovativeness is important in the adoption of a videotex service. Studies on pay cable (Krugman and Eckrich, 1982) and home computers (Danko and MacLachlan, 1983) have concluded that venturesomeness is a key attribute in the adoption of those products.

While innovativeness and related concepts have been helpful in understanding the use of new media services, they are limited in explaining how such services fit into consumption patterns. Innovativeness as one antecedent state does not yield a complete understanding of the user interface with new technology (Venkatesh, 1985).

A focus on the consequences of adoption has also been discussed by Robertson (1971), when he noted that some new products only slightly alter existing consumer-use patterns, while others require moderate or dramatic change. The key is the way a new product affects an established pattern of consumption. New products that require slight or moderate change in the existing consumption pattern were termed "continuous" and

Figure 11.1
Individual and Situational Determinants of New Technology Adoption



“dynamically continuous.” Those requiring a great deal of change are termed “discontinuous.” Discontinuous products that require more change on the part of consumers are seen to have a better opportunity to be investigated within the framework of innovativeness (Robertson, 1971; Krugman, 1985). By nature, they require the consumer to establish a new consumption pattern.

The proposed conceptualization depicted in figure 11.1 integrates these issues of characteristics of the individual with the situation accompanying the use of the new technology. Both characteristics of the adopter (resister) of this technology and their existing level of usage of available technology serve to determine reactions to a complementary form of new technology. The framework argues for an interactionist perspective, in which a phenomenon is examined within the context of a preexisting consumption state that is modified as technology is introduced into the household (Beron and Byrne, 1978). Issues such as product complexity, or compatibility of an innovation with existing individual values and experience (Rogers, 1976), rely upon this melding of the nature of the product with individual differences in consumption, in attempting to account for the rate of adoption of new technologies.

Underlying the continuity paradigm is the relationship between existing household technology and the nature of the process accompanying the integration of new technology with existing technology. Households will differ in their adoption of existing television services; thus the adoption of new services should be examined within this context. In proposing an inventory of new diffusion research, Gatignon and Robertson (1985) concluded that research has not been conducted concerning the relationship

of new adoption with the individual's existing consumption system: "Future research could contribute by focusing on how an innovation fits into the existing consumption system and inventory patterns." (Gatignon and Robertson, 1985; 854-55).

The focus on existing consumption patterns remains germane to the study of new media services and products. Consumption of such services is usually multiple. Cable television users are more apt to own a VCR than those who do not subscribe to a cable service (Rothe, Harvey, and Michael, 1982; Kaplan, 1978). Pay cable owners are even more disposed to owning a VCR (Harvey and Rothe, 1986; Krugman and Eckrich, 1982).

In a review of 32 empirical studies, conducted in the area of new media services, Krugman (1985) supports the overall framework of continuous to discontinuous consumption of this technology. Basic cable services, which only slightly alter viewing, were characterized to be continuous innovations, because consumers are still watching television but have a greater selection (figure 11.1). Pay cable services, which are bought on a subscription basis and do not have advertising, were judged to be dynamically continuous. Consumers are now directly paying for television without commercial interruptions. Therefore, they are more apt to use television differently than they have in the past. Interactive services requiring new forms of behavior, such as home shopping and banking, were seen as discontinuous because television is performing a vastly different function than providing over-the-air passive entertainment.

The multiple adoption of new television services lends credibility to the idea that consumers possess an overall framework into which they accept or reject new media products and services. Certainly, many of these groups are different merely in the way they are composed according to their "known group" characteristics; that is, nonsubscribers to cable, basic cable subscribers, pay cable subscriber purchasing one service, pay cable subscribers purchasing multiple services.

It is important also to know if consumers falling within these prior consumption categories are different in their overall approach to new media services and their motivations for consumption. At least three areas may prove insightful regarding the way various groups approach new television services, motivations toward using television, openness to technology, and resistance to technology.

Ritualized/Instrumental Television Viewing

Specific motivations for viewing television programming may serve as important anchors for the way individuals utilize new television services. Television research has established the existence of both ritual and instrumental viewing (Rubin, 1983). Ritualized viewing is associated with habit,

frequency, and entertainment. Instrumental viewing is more purposeful, directed, and goal seeking.

Directed and active viewing is similar to the notion of high involvement. It has been argued that much mass media content is of a low-involvement nature but that certain media might "boost up" involvement from its typically low level (Greenwald and Leavitt, 1984). Certainly, some of the more selective and interactive new media services *potentially* require more directed or active viewing.

Adoption and Comfort with Technology/Resistance to Technology

It is important to consider how individuals relate to technically oriented products. New media services give the appearance of being technically oriented. Cable terminals have options for multiple input and remote control. Many VCR applications require a good deal of signal and channel adjustment. In cases of delayed VCR recordings, minimum programming skills are necessary. Pay-per-view purchases usually require special codes utilized by a two-way terminal.

Adoption and comfort encompasses but extends beyond television services to include other new technologies. A segment of technology-oriented individuals exists that "requires" technically oriented electronic audio/visual products. They have been identified as technologically advanced families "Taffies" (Yankee Group, 1986). Home computer users are more prone to purchase other new products with a technical orientation (Dickerson and Gentry, 1983). Households active in the use of television technologies are very often more receptive to the use of new technologies (Venkatesh, 1985). Individuals who are comfortable with computers are more likely to use a videotex service such as home shopping or banking (Leadingham, 1984). It is reasonable to conclude that many new television services are viewed by consumers as an extension of technology. Therefore, individuals predisposed to new technology would be more likely to adopt such services.

The literature in this area is pro-innovation and focuses on who is using products (Rogers, 1976); however, there is also a concern for resisters and why they do not use a new technology (Leonard-Barton, 1985). This may be of key importance in beginning to explain the groups that do not elect to purchase or subscribe to new television services. In contrast to the group that is open to new technologies, there is a group that perceives some innovations as too complex. Perceived complexity is considered to be a major obstacle in the adoption of products (Rogers, 1976; Rogers and Shoemaker, 1971).

Sheth (1981) noted habit toward existing products and perceived risks associated with innovations as key reasons why individuals resist innovations. Other research has noted that individuals electing not to subscribe

to cable are satisfied with current programming, or that "television is television" and that new sources were not terribly important (Baldwin and McVoy, 1983). Thus, a resistance to innovate may be a conscious decision; it deserves study, along with an examination of consumers open to new technology adoption.

Hypotheses

The current study focuses on how a media service, pay-per-view (PPV), is adopted by groups using various levels of related and compatible media services. PPV is the newest cable service being marketed. With PPV, cable subscribers select movies on an individual basis, rather than purchasing a schedule of programming, as in pay cable (i.e., HBO, Showtime). PPV subscribers must interact with the cable company to order a special program. In this study, they used a two-way decoder box connected to the television. Subscribers were given their own number codes to order movies.

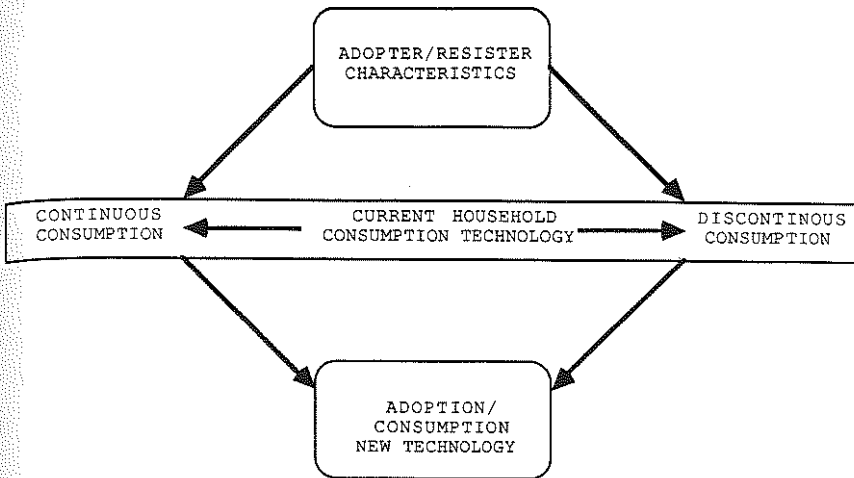
The underlying purpose of the study is to assess how services are adopted within the household's *existing* consumption system. The results should provide insight as to whether groups differing in their past consumption of television technology possess different motivations for television use and different orientations toward new media technology, and whether these motivations and orientations influence the way groups of households assess the new PPV television service.

Four "known groups" varying in their prior consumption of existing television services were studied: (1) traditional television users who have opted not to subscribe to a basic cable service, (2) subscribers to a basic cable service, (3) subscribers to a basic and one pay cable service, and (4) subscribers to a basic and multiple pay cable service. The investigation among these groups allowed a test of the proposed conceptualization regarding motivations for television use and orientations toward technology.

The conceptualization provided indicated a straightforward approach to how PPV will fit into existing consumption patterns, by relating adopter/resister characteristics with regard to technology and ritualized (habit) versus instrumental (directed) television viewing. The framework supports a scheme whereby PPV is differentially posited as a dynamically continuous-to-discontinuous product, and recognizes that consumers in each prior technology group will evaluate a new media service within their existing consumption pattern. As discussed, PPV requires individuals to consume media in a different manner than traditional over-the-air television; since (1) programs are paid for on an individual basis, (2) the consumer is more active and interacts with the cable company, and (3) programs are not interrupted by commercial messages.

Figure 11.2 represents known groups as different segments in a continuum of consumption, and assumes that groups at each end of the continuum

Figure 11.2
Predicted Consumption Continuum for PPV



are more diverse than groups in the middle of the continuum. Given the nature of ICT, individuals opting for the new media service, PPV, are more likely to be instrumental or more directed in their motivations toward using television. Individuals who are more routine or ritual-oriented in their motivations toward using television will not be as favorably predisposed toward using pay-per-view.

In general, individuals who resist technology will not be as favorably predisposed to using pay-per-view, whereas individuals who are more open to technology will be favorably predisposed to using pay-per-view. Based upon our interactionist perspective and the contingency-based nature of prior technology adoption, we posit the following hypotheses.

- H1: Prior use of television will impact the way consumers evaluate the PPV service. The known groups—characterized as traditional viewer with no cable, basic cable only, basic cable with one pay service, and basic cable with multiple pay services—will display different structures in the relationship between the antecedent individual factors affecting their reactions to PPV.
- H2: Known group affiliation will influence the orientation individuals have toward television and their evaluation of PPV. The orientation should become more divergent as the known groups move from traditional no-cable to cable multiple-pay. The traditional-viewer, no-cable group should be more ritual oriented toward television and the evaluation of PPV. The basic-cable and multiple-pay groups should be more instrumental in their approach to television and the evaluation of PPV.
- H3: Openness to technology will be a more important (positive) variable

in the cable one-pay group and cable multiple-pay group when they evaluate PPV.

- H4: The number of technologically oriented products owned should be a more important (positive) variable in the cable one-pay group and cable multiple-pay group when they evaluate PPV.
- H5: Perceived PPV complexity should be a more important (negative) variable in the traditional no-cable group, and less of a variable in the structure of the basic cable, one-pay, and multiple-pay groups.
- H6: Perceived value will be an important variable (positive) in the evaluation of PPV, particularly for the traditional no-cable group.
- H7: The more similar PPV is perceived to be to present cable technology, the lower will be its evaluation. This should be a more significant factor among groups with a greater exposure to available services.

To examine these hypotheses, a field experiment was conducted, the results of which are summarized following a description of the study methodology.

Method

Research Design

The PPV technology was a new service to the market that was the focus of the present study; however, basic cable and pay channels were existing services. Since subscribers did not have any experience with the PPV technology, the decision was made to conduct a field experiment. A franchiser in the Minneapolis/St. Paul area agreed to provide support for the experiment.¹ Households were selected from existing subscribers on a random basis according to their previous adoption of cable technology. Nonsubscribers were selected from the records of the franchiser according to those who had previously refused to subscribe to a cable service when first offered by the franchiser. Study participants were contacted and provided the PPV service (not previously offered in this franchise area) for a test trial of three months. Participants were surveyed both prior to their use of the PPV service and following the three-month trial periods. The design was thus a pre/post field experiment with four levels of prior cable service adoption.

Sample

The sampling frame for the study consisted of the records of the local cable franchiser. Based upon these records, subscribers were classified as

1. The authors wish to acknowledge the support and cooperation for this project from Group W Cable.

to whether they had basic cable service only, basic cable service plus one pay channel (e.g., HBO or Showtime), or basic cable plus two or more pay channels. A nonsubscriber list was obtained from sales call records. Each of the four groups was telephoned, the nature of the study was explained, and households were asked to participate for the three-month test period. Households that previously had refused basic cable were offered the additional inducement of free basic cable for the three-month test period. The sample thus consisted of 75 households from each of the four groups.

The 300 households were surveyed about their usage and attitudes toward cable television prior to installing the two-way transmission decoders. Following the test period, participants were again surveyed regarding their reactions to the PPV service, as well as other issues related to the study. Questionnaires regarding the pretest were distributed by installation personnel, and returned directly to the second author at his university address. The follow-up survey was mailed and returned to this address as well. Usable responses to both waves of the survey were received from 99, or 33% of the study participants. Respondents by groups were: no prior cable—17 (23%), basic cable—31 (41%), basic cable plus one pay channel—27 (36%), and basic cable plus multiple pay channels—24 (32%). The low response rates are probably due to the random selection of the participants, serving as a form of experimental mortality, and thus are a limitation of the present research. In spite of this, some insights might be gained by examining the nature of the reactions to the PPV experience.

Procedure

Participants in the field experiment were informed that the study was jointly sponsored by a local university and their cable franchiser. They were informed that the cable franchiser was conducting a test of the new PPV technology, and that their responses would be used as input in the ultimate decision to offer the service at a future date. All households understood that a test of the service was being conducted, and the service would no longer be available following the three-month period. The non-subscribers were informed that they could, at their option, either maintain the service at cost or discontinue their service.

Materials for the PPV channel were distributed prior to the test period. Households were provided with a booklet of instructions on how to order the service. Additionally, instructions were displayed on the channel for a three-day trial period prior to the actual test, during which time they were allowed to use the system without charge. During the test period a specially prepared program guide was distributed monthly that listed the times at which households could purchase the PPV programming. Due to a limitation in the franchiser's equipment, programming was only available

in late afternoon and during the evening. The content of the programming consisted of a variety of movies ranging from westerns to comedy/humor to dramas, and included releases from the prior year. Prices for the movies ranged from \$.49 to \$3.99 and were listed in the program guide.

Measures

Adoption and Comfort with Technology.

Adoption of technology and media-related services is often found in multiples (Kaplan, 1978; Rothe, Harvey and Michael, 1982; Dickerson and Gentry, 1983; Yankee Group, 1986). Respondents were asked to indicate if they owned or used twelve products associated with electronics and technology: VCR, telephone answering machine, automated bank teller, video TV game, home or personal computer, microwave oven, call waiting/forwarding, compact disc player, cable television, wireless telephone, programmable pocket calculator, and a computer terminal at work.

While adoption and use are important, they give an incomplete picture of the interface with technology (Venkatesh, 1985). Therefore, respondents were also asked to rate how *comfortable* they would be with each of the above technologies. The five-point scale ranged from very comfortable to uncomfortable.

The scale was developed to assess product specific openness for new technologies. This extends previous work which associated comfort with computers with the willingness to use a videotex service (Leadingham, 1984). More general personality variables of innovativeness have also been used to predict the adoption of videotex and other telecommunication services (Ettma, 1984). Venturesomeness, for example, has been associated with the adoption of computers (Danko and MacLachlan, 1983) and the use of pay services (Krugman and Eckrich, 1982).

Ritualized/Instrumental Viewing.

Respondents were also asked to assess their motivations for viewing PPV. Earlier work on television viewing has established the existence of both ritual and instrumental viewing (Rubin, 1983). Ritualized viewing is associated with habit, frequency, and entertainment. Instrumental viewing is more purposeful, directed, and goal seeking. The scales used to determine these attributes were modified to accommodate PPV viewing.

Directed and active viewing is close to the notion of viewing involvement. Certain media might "boost up" involvement from its typically low level (Greenwald and Leavitt, 1984). It has been concluded that newer media services potentially require more directed or active viewing (Krugman, 1985). Therefore, the instrumental/ritual issue appeared germane to the focus of the study.

PPV Reactions.

A number of items assessed specific issues related to PPV. Eight items were used to determine attitudes toward PPV ($\alpha = .88$). Each included a five-point scale (agree-disagree) with various dimensions of PPV service. Example items included, "PPV doesn't really fill any of my entertainment needs," or "Compared to other forms of television, PPV is a great idea." PPV Value was determined by having respondents rate the value of the service from good-to-bad on a five-point scale over the different price levels (\$.49, \$.99, \$1.49, \$1.99, \$3.99.) Simplicity of product use was assessed, since complexity has been a major focal point in innovation research. Products which are perceived as simpler to use have a greater chance to be adopted (Rogers, 1976). Three items relating to the ease of equipment use and entering the purchase code were asked on five-point agree/disagree scales.

PPV service is purchased on an individual basis rather than a subscription service like pay cable. However, there was a concern over the *perceived similarity or differences* between the two. Therefore, subscribers were asked to rate the two services from very similar to very different on a semantic differential-type five-point scale.

Finally, respondents were asked about their *intention* to purchase the PPV service if offered in the future, on a ten-point scale ranging from very likely to very unlikely.

Results

The data were analyzed using canonical correlation analysis. This allowed for a joint interpretation of the two dependent measures (attitude toward PPV and intention to purchase PPV), with respect to the antecedent individual characteristics. Table 11.1 indicates the canonical loadings (structure correlations) for each of the technology groups. The strength of the relationship between the two sets of variables is assessed by the canonical correlations and their respective chi-squares.

Hypothesis 1 is generally supported. Each of the known technology groups presents a different structure among the independent variables. Three of the four groups represent a profile, along the independent variables, that is significantly related to the dependent variables of attitude and intention to purchase PPV. Two groups, "basic cable plus one pay service" and "traditional viewers/no cable" yielded canonical correlations that were significant at $p < .05$. The canonical correlation for the "basic cable plus multiple pay" group was marginally significant at $p < .10$. The only group in which the canonical correlation does not provide a significant relationship is for "basic cable only."

Results indicate that hypothesis 2 is supported. Known group affiliation

Table 11.1
Canonical Loadings for Groups Based Upon Prior Adoption of Television Services

Individual Characteristics	Prior Television Service Adoption			
	No Prior Cable Experience (n=17)	Basic Cable Only (n=31)	Basic Cable Plus One Premium Channel (n=27)	Basic Cable Plus Multiple Premium Channels (n=24)
<u>Independent Variables</u>				
Ritualized Viewing Behavior	.39	-	.20	-.63 ^a
Instrumental Viewing Behavior	-	-	.29	.30
Openness to Technology	-	-	.33	.55
Number of Products Owned	-	-	.41	-.38
Product Complexity	-.48	-	.23	.27
Perceived Value	.49	-	.52	.33
Product Similarity	.20	-	-	-
<u>Dependent Variables</u>				
Attitude toward PPV	.58	-	.85	.56
Intention to Purchase PPV	.49	-	.18	.56
Canonical Correlation	.79	.61	.66	.65
Chi-square	29.0 ^c	20.2 ^d	25.4 ^c	20.7 ^b

^a entries in cells are canonical loadings (structure correlations)

^b $p < .10$

^c $p < .05$

^d $p > .10$

is strongly associated with the motivations individuals have toward viewing television and their subsequent evaluation of PPV. The differences are more divergent at the ends of the continuum. The "traditional viewer/no cable" group indicates that ritualized viewing is an important factor in the assessment of PPV. This group displays the motive of ritualized viewing with regard to its evaluation of PPV. The reverse is true on the other end on the continuum. Ritualized viewing is a strongly negative factor in the "basic cable plus multiple pay" group.

Instrumental viewing is a positive factor in the "basic cable plus multiple pay" group, but not a factor in the "traditional viewer/no cable group." Instrumental, more active viewing is important to basic cable plus multiple pay users, and ritualized, more habitual viewing is more important to

traditional non-cable viewers. The "basic cable plus one pay service" group is a middle ground in this continuum. Both ritualized and instrumental viewing are seen as moderate factors in the structure.

Hypothesis 3 is only partially supported. As expected, openness to technology is an important variable in the structure for the "basic cable plus multiple pay" group, and not a factor in the "traditional viewer no cable" group. However it was anticipated that openness would also be positively correlated with attitudes and intentions in the "basic cable plus one pay" group. This was not the case; in contrast, the canonical loading is negative and thus opposite to the direction predicted. This group is more complex in its evaluation of PPV; however, as demonstrated by the differential loadings for the attitude and intention scales, versus their more uniform loadings for the two groups at the end points of the prior adaption continuum.

Hypothesis 4 was not supported. The number of technically oriented products owned is not associated, in the expected direction, with attitude toward and intention to purchase PPV. Results are not consistent. The variable is negatively associated with the "basic cable plus multiple pay group" and positively associated with the "basic cable plus one pay" group. One explanation may be the nature of products used in this question. Twelve technically oriented products were included, but they ranged from a microwave oven to video-TV games.

Hypothesis 5 is weakly supported. Product complexity is an important factor in the "traditional viewer/no cable" group. As expected, the more complex PPV is perceived to be, the less positively it is evaluated. This same relationship holds for the "basic cable plus multiple pay" group, although not as strongly. This would be expected given their greater openness to new technology. However, the "basic plus one pay" group does not display the expected direction. The greater the perception of complexity, the higher the evaluation of PPV.

Hypothesis 6 is generally supported. Perceived value is an important aspect in the assessment of PPV. Its significance would appear to be greater for the groups demonstrating a lower propensity for adoption of prior cable technology. Value, however, still plays a role among those with multiple adoptions, perhaps reflecting the instrumental nature of their viewing behavior.

Hypothesis 7 does not receive support. The similarity of PPV to existing cable services did not, as predicted, lower the evaluation of PPV. Similarity may have played a minor role in the perceptions of those without prior cable experience, but was not a key factor for this group either.

Discussion

The interactionist perspective used in guiding this research maintained that in order to assess the impact of new forms of existing technology it would

be necessary to consider situational factors in addition to the more traditional characteristics of individuals, such as their influence patterns and risk perceptions. The model proposed a relationship between individual characteristics and the degree to which prior technology had been adopted by households. The results provide support for this perspective, and emphasize the need to consider the *interaction* between specific situational factors and individual characteristics when investigating adoption behavior in future research. Through the field experiment, we also found it important to consider the reactions not only of households that had shown various propensities for adoption and use of existing technologies, but also of households that had resisted the adoption of this technology. The integrated study of both forms of behavior is necessary, if we are to broaden our understanding of why individuals both consume and resist the adoption of new technologies.

Results indicate that prior consumption of television technology can be successfully used to develop a framework for explaining why consumers will elect to utilize other new television technologies. The idea of a continuum of consumption is partially justified. The continuum works very well in providing an explanation for groups at the opposite end of the spectrum, and can provide marketers of new media services with a useful segmentation approach.

Specific television motivations of ritual (passive and habit) and instrumental (active and directed) viewing are key determinants in how individuals will evaluate a new television technology. More *general* individual measures relating to technology were not as uniformly successful in developing market segments. Yet there is enough evidence in the openness to technology and product complexity scales to suggest that further work would be of value.

While the scheme of a continuum worked extremely well for the groups most divergent from one another, it did not provide consistent evidence to support and explain the groups in the middle. It is difficult to know why this is the case. However, one reason seems plausible. The group formations along the continuum are distinct with respect to cable usage, but may be arbitrary with respect to their psychological perspective on new technologies. This would explain the large differences between multiple-pay and one-pay groups. The differences between the one-pay and multiple-pay groups were not anticipated; yet clearly these are two very different segments. Thus, support is provided for the proposed continuum, but the exact nature of any sub-groupings and their respective breakpoints deserves further attention. This may also explain why the basic cable-only group was not differentiated along the issues addressed in this study.

In conclusion, if we are to understand the complex nature of adoption behavior, our perspectives and methodologies must continue to advance to reflect these complexities. Various facets of the situation surrounding

the adoption context must be considered when relating individual or household factors to a framework useful for predicting the adoption of new technologies. Perceptions of the uniqueness of new technologies, and the role they might serve, must be considered within the context of a household's overall consumption system—particularly with respect to the prior adoption of compatible and complimentary, as well as competing, prior technologies.

The moderating effects of such factors argue for the use of richer frameworks that incorporate contingent relationships and the use of more complex research designs, such as the field experiment utilized in this study. Future research might take advantage of the causal nature of these designs and the need to model complex mediating relationships through such techniques as covariance structure analysis. Through the application of such techniques within the type of framework employed in this research, we stand to gain much insight toward understanding the impact of new technologies on preexisting household consumption behavior.