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## INTRODUCTION

Research on consumers' post-sales communications over problems with their purchases can be characterized in two broad ways: it is descriptive, and it is almost entirely concerned with the complaining consumer. The literature focuses on the complaining consumer apparently assuming that a consumer will complain independent of the medium of complaint. The effects of the mode of complaining have not been extensively researched.

The present research focused on the 800 number and attempted to characterize consumers' use of that communications medium in the light of the aforementioned deficiencies in the literature. Because of the focus of the literature on the complaining aspect of use of communications media, stress was placed on complaints, even though 800 numbers also function as a medium of inquiry [2].

Note that the 800 number represents manufacturers and not stores. That being the case, it is possible that consumers will attribute the resolution of problems via the 800 number to the "good" manufacturer and continue to blame the "bad" store.

## HYPOTHESES

The following hypotheses were tested in this study:

1. Since we are assuming that mode of complaint is a significant antecedent variable, users of 800 numbers have different styles of complaining than non-users, where "style" refers to the combinations of use of complaint modes by consumers.
2. On the whole since demographic variables have been unsuccessful in discriminating complaining from noncomplaining behavior [1], there should be little relationship between using an 800 number to complain and demographic characteristics.
3. Individuals who have used an 800 number to complain will be less store loyal when dissatisfied than those who have not used an 800 number.

## METHODS

A total of 300 surveys were distributed to their employees by local businesses in a medium-sized Midwest city. Two hundred and ten usable surveys were returned (70%). The demographic data were not particularly skewed from the census data representing this area.

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To test the first hypothesis, consumers were asked to rate, on a 1 - 4 scale (4 = more likely), 10 different actions in terms of the degree to which they have used them to resolve problems/complaints about goods and services they might have purchased. A significant F test on the difference of likelihood of use of other complaining mode for respondents who would use an 800 number to complain as opposed to those who would not would be indicative that 800 users have a distinct style of use of complaint media.

For the second hypothesis, respondents were asked their age range, family income, gender, educational experience, marital status and number of children. For the third hypothesis, an F test was applied to the difference between respondents who would use and those who would not 800 numbers with respect to the likelihood that they would refuse to buy from the relevant store in the future. A significant F would indicate that 800 number users were store disloyal.

## RESULTS

As predicted under hypothesis 1, complainers had distinctively different complaining histories/profiles than noncomplainers. Furthermore, the style of complaining appeared to be oriented toward use of private sector (nongovernmental) modes. People who complained using an 800 number were significantly more likely to complain directly to a store, complain to the Better Business Bureau, or complain to private nongovernmental agencies.

As in previous studies, demographic variables held little power to differentiate those who complain. Users of 800 numbers were marginally of higher income and marginally more likely to be male, but otherwise hypothesis 2 was upheld.

As predicted by hypothesis 3, individuals who had used an 800 number to complain report themselves significantly more likely to refuse to buy from a store if dissatisfied. That is, 800 number complainers were more likely to be store disloyal than other consumers. This is attested to by an F score of 13.69 for the difference between likelihood that the consumer will refuse to buy again from the store between 800 users and non-users.

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ABSTRACT

The Chinese are taking steps to aid consumers in their market place. A 126-member Chinese Consumers Council has been established to 1) protect the consumer and 2) to provide guidance to consumers in their marketplace dealings. The Council conducts random inspections in the marketplace, responds to complaints and disseminates information through newspapers, televisions and their own newsletter.

I'm blessed to be with you today. And I decided I'd begin with words I heard recently.

"I've had this TV only three weeks and it doesn't work...."

"I paid more than I should have for this iron...."

"The food I bought was spoiled...."

Complaints from the consumer office in Washington? No. From Penang? No. Well, where then? The consumer office in Beijing, China.

A year ago this month I took a trip to the Peoples Republic of China and after satisfying visits to wonderful places I spent the better part of three days visiting the China Consumer Council in Beijing. Previous arrangements had been made through an associate from China I met at the United Nations and through correspondence from the International Organization of Consumers Unions.

I found a completely new dimension to my knowledge and understanding of the PRC. I had a previous visit in 1973 when the cultural revolution was in full swing. The contrast between then and now is staggering, and contrasts between the rural and urban centers is very marked. Traffic, colors, full markets, buildings going up all over mark the cities. The country areas, the largest part, continues to be dominated by peasant farmers and is pretty much as it was before. But throughout I felt a wave of optimism and a new marketplace freedom and an industrious, hardworking, and healthy population.

A consumer movement in China? How, under a predominantly state owned and operated economy which is moving into a period of modernizing with a partial free market economy? How? Can some of the benefits of a free market economy be directed to assist in the development of the country? Can a consumer protection component fit?

Before visiting Beijing and the Consumer Council I had various discussions with both Chinese and

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observers of the Chinese experience which led me to the conclusion that there is a belief among some that too high a price might be paid if China adopts the kind of free market practiced in some highly developed societies, mainly the United States. There is an undercurrent that if Premier Deng succeeds in his efforts, cultural and moral values the Chinese people have long cherished might change, and traditional values of honesty, integrity, respect, cooperation, ethics, morals, and family strength might be seriously weakened. I sensed many felt a need for a countervailing force, an organized consumer council and movement that could help to restrict possible abuses. If balanced progress were to be made, consistent with the anticipated growth in personal income, there must be assurance of fairness, quality, safety and redress, in the marketplace.

In a number of places I saw "pressure" buying - even in a village - but the further inland we went there was less. I saw advertising similar to some of ours stressing buying of products not fully approved by traditional values, some cosmetics, for instance.

So when I got to Beijing I was pleased to be received by the chairman of the Chinese Consumer Council and the Secretary General. I had learned from IOCU material that on December 26, 1984, the 126-member CCC was established by formal action of the PRC Congress. The council has the endorsement of top officials of the PRC. There are 22 standing committees plus a chairman, five vice chairmen, a secretary general, three special advisors: law, chemistry/medicine, and an economist. These three advisors are top persons in their fields and carry the weight of authority. The honorary chairman is a top official in the People Council, Mang Run Zhong, which indicated the seriousness of this action. There is a staff of 65 persons in Beijing. Fifteen work fulltime on complaints and many from various "social groups" assist (I think as volunteers).

Beijing is the head office. There are 88 offices in various provinces and some towns are also setting up consumer offices. The purpose of the Council is twofold: to protect the consumer and to provide guidance in their dealing with purchases and related activities in the marketplace. Letters to the Council are written, 2986 during the first year. Complaints deal largely with quality, food security (additives, etc.), sanitation, and price. Over 500 consumers had visited the office with complaints the first year. I looked at the complaints. One was about a TV repair, another was about rancid food, and another was about overpricing. A refund equal to six cents was one of the complaints. I'm told the consumer got it!

The council conducts random inspections of the marketplace...food, drug, appliances...all consumer products. If found guilty of fraud, unsafe products, adulterations, etc., the person or establishment could be fined. The Council reviews programs and complaints. They see that food and drug laws are monitored. Recommendations for improvement come to the Council from consumers. Publication and exposure of wrongdoing is, I'm told, the next effective deterrent.

The Council, to project information, in addition to the paper they publish (which reads somewhat like Consumer Reports, according to the translator!) conducts TV programs and puts articles in the official papers with recommendations to consumers on pertinent issues. I asked what happens when the business and factories are state owned. The chief officer said that they do not resent the criticism because "It can help us improve our work." They hoped that factory quality control would make difficult the sale of products not up to standard.

Before the Consumer Council was set up leaders had travelled to Hong Kong where they met with consumer leaders and had help in formulating the program. It was pointed out by the chairman that it might be advantageous to develop a regional group of Hong Kong, Singapore, and China (they did not mention Japan or other more westernized countries). Earlier a consumer council had been set up in Canton. The Beijing organization benefited from the early activity for their statements paralleled those made in Canton. But now, Beijing is the center for direction of China's consumer activities.

Examples of some of the Council's actions are interesting: an ad for a sports machine claimed great benefit "if you use this..." It was withdrawn as false. A medicine as advertised which was said to cure "flu" was found to contain 99% sugar. It was withdrawn. Certain infant food formulas have had to be changed.

As stated before, the biggest complaints are concerning sanitary conditions in the marketplace and public establishments, medicines, and prices of clothes and appliances, also the safety and quality of electrical appliances. Discussions concerning housing, wages, etc. were also held but these items were not the official area of the consumer council though they were very free in their discussions. It must be stated that all this information came through a translator who spoke very good English and is a top person in the governments trade group.

On the second day, we visited pharmacies, department stores, and fast food establishments. In fact, we touched the main streams of the Beijing market. The morning ended with a very superb luncheon. It was probably the best I had in all of China and I had some superior meals! We toasted and drank and had frank discussions about China's future and the hope for friendship and cooperation with our government and with our consumer movement.

One of the most satisfying things they told me was of their Consumer Rights Day on March 15. They showed me their paper of March 15 which carried a picture of a big banner telling of Consumer Rights Day which was flying across the street. They knew of the basic consumer rights, and when they learned that I had worked with President Kennedy there was certainly an acceptance I had not felt until then. One gentleman, Zhu Zhen Yuan, a high official, came to the luncheons. He spoke fair English and stated that they used the Kennedy Consumer Bill of Rights in developing their program. My last day in Beijing was spent largely with the translator and Mr. Li's assistant. We spent hours going over their publications. They translated various headlines and articles and cartoons - of rare humor! Some of the subjects in the papers:

- 1) Consumer rights, and a feature article on Consumer Rights Day.
- 2) Description of what businesses and establishments cannot do.
- 3) False advertising
- 4) Shelf life
- 5) Poor quality of products
- 6) Punishments: (1) can be required to refund (2) be openly criticized (this they said is the most effective) (3) can go to another agency - law enforcement.
- 7) Pricing: Prices are stable since most production facilities are government owned. The free stores can charge different prices and must carry a license notice in their window. If the products they sell come from the government warehouse they must be sold at the controlled price. The free establishments charge more but offer more variety, especially in clothing. There are free markets for produce and there are government stores where prices are controlled.
- 8) Working for toy safety
- 9) Working against smoking (ads are not allowed for tobacco and alcohol)
- 10) Labeling (especially food)
- 11) They are anticipating problems with regard to frozen foods. So far there is none on the consumer market, only duck for restaurants, as far as I learned.
- 12) Chemical and natural medicines

I did not get information about hazardous products nor chemical fertilizers, except expressions of concern, although information might be in their publications.

The paper accepts advertising because "we must be self-supporting." They screen the ads. They are largely big establishments but not consumer products as near as I could tell. There are consumer letters in their consumer paper.

In answer to my inquiry relative to the Consumer Guidelines, passed at the U.N. in April '85, I was told that they were working on an analysis of their protections to see how they measure up to the guidelines. They hope to complete this before too long. They stated a general agreement with principles and are now "studying the details." They asked why there was nothing

specifically referring to developing countries in the guidelines, one of which they consider they are.

The Chinese Consumer Council and the way it is organized completely "from the top" poses some interesting questions. There is no model to look at, no Sweden middle way, no free regulated marketplace as in developed countries, no rank and file membership, no ACCI, no OECD patterns. It will be very interesting to watch. I'm hopeful. I like these people and feel that their traditional values, their new willingness to try and their revived industrialization and concern for economic growth point to new directions. We must work with them and keep an open mind. It could mean a blend of the positive elements of Marxism and capitalism. At least, we are in for new experiences.

A positive outgrowth of the meeting was the acceptance by the Council to have a representative at the I.O.C.U. conference held in New York. Mr. Wang Jiang Yun plus a representative of the Chinese embassy attended the entire session. Mr. Wang, who is the secretary-general of the council, was quoted in the New York Times as saying the council is financed and sanctioned by the People's Republic but, independently operated. He said, "Along with the open-door policy, production has improved greatly in China and more and more commodities have turned up. Along with that, consumers find some products are not up to standards of what is in advertisements, so the consumers find it necessary to organize a Chinese consumers union to look after their own interests."

And as we are getting to learn of China's growing consumer movement there is another I'd like to mention briefly. I've recently returned from Montevideo, Uruguay. I attended a conference under the auspices of the U.N. to discuss implementation of the Consumer Guidelines passed by the General Assembly of the U.N. in April of 1985. The meeting was attended by representatives of 20 Latin American and Caribbean countries. There were 3 days of discussion which ended with a declaration itemizing broad issues that need attention. The declaration is appended to this paper.

This is part of a new and growing attention to consumer concerns by government. The I.O.C.U. world meeting to be held in Madrid this September will further this development. The international development of the consumer movement bears watching.

There are 3 developments at the U.N. which have great importance to consumers. The publication of the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments and the official acceptance and publication of the Consumer Guidelines. These are effective tools now being used increasingly by the consumer movement internationally.

The third is the possible acceptance of the proposed Code of Conduct for Transnational Corporations now being discussed at the U.N. at the Centre for T.N.C.s. The draft code has a strong consumer component. Acceptance of this Code would help set voluntary standards for the operation of TNCs and also standards relating to host countries. The development bears watching and should be supported.

Consumers all over the world are coming forward and are influencing the marketplace in both developed and developing countries. They are opening new fields for consumer educators and activists and I believe will be of substantial influence in future economic and social developments.

#### THE MONTEVIDEO DECLARATION

Adopted at the IOCU Regional Conference for Latin America and the Caribbean, Montevideo, Uruguay, 1-4 October 1986

Participants at this first IOCU Regional Conference for Latin America and the Caribbean, meeting in Montevideo, 1-4 October 1986, and representing 82 groups from 22 countries, acknowledge the diversity of the groups at this Conference, reflecting the diversity of those active throughout the world to advance the interests of consumers.

1. Having discussed the high incidence of poverty in this region, and using food as an example where the problem is both one of supply and of distribution, the Conference affirms that the basic needs of consumers must be met fairly, promptly, and with equity. The right to have the basic needs fulfilled is the most pressing consumer right in this region and working towards the realization of this basic right is the commitment we share.
2. Having discussed the fact that consumer protection concerns itself with broad economic deficiencies, as expressed through the high levels of inflation, problems of foreign debt and recessive policies, the Conference affirms that governments should not wait for consumer protest, but must take measures to protect consumers at a local, national and international level, with special emphasis on the protection of marginal groups, and must recognize consumers as social partners in negotiations affecting consumers, such as setting of prices.
3. Having discussed the UN Guidelines for Consumer Protection, it expresses its support for the Guidelines as an agreed world statement on what constitutes a fair standard of protection for all consumers in the world; the Conference
  - (a) affirms its commitment in working for the implementation of the Guidelines;

- (b) welcomes IOCU's support for the campaigns of our organizations as well as its assistance to governments who wish to develop and strengthen their consumer protection legislation;
  - (c) looks forward to the Regional Consultation of the United Nations on the Guidelines for Consumer Protection, to be held in Uruguay, and requests governments to include representatives of consumer organizations in their delegations;
  - (d) requests the assistance of governments for independent consumer groups.
4. Having discussed the consumer right to safety, the Conference affirms the need for vigilant consumer action to ensure that the region will not serve as a dumping ground for the marketing of products which are hazardous, wasteful or inappropriate, such as tobacco and many pharmaceuticals, pesticides and baby foods, and furthermore expresses its preoccupation with the active role played by the mass media in promoting products toxic to human health and the environment and promoting aggression in our cultures. The same applies to the production and trafficking of drugs and its relation to the structural problems of agricultural production.
5. Having discussed the special problems faced by women as consumers, the Conference agrees to incorporate these problems in the activities of the world consumer movement, especially in Latin America and the Caribbean and to promote studies and research which will serve as a basis for formulating a strategy in this field.
6. Having discussed the need to obtain a balance of power in the marketplace and in economic decision-making, both nationally and internationally, among those who consume, the Conference
- (a) affirms that it has started to work towards obtaining such a balance in Latin America and the Caribbean and has made an important beginning at this Conference for this region;
  - (b) and therefore expresses its confidence that the Latin American and Caribbean consumer movement will grow and give new vigour, new priorities, new insights and new achievements to the global consumer movement.

Together we will give a strong and effective voice to consumers in this region and in the world.

METHODS TO ENHANCE INFORMATION SEARCH USING  
VIDEOTEX AND RELATED TECHNOLOGIES

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ABSTRACT

An analysis of videotex systems in regards to the provision of consumer information was conducted. The characteristics of videotex systems were shown to satisfy the objectives of an information system. These objectives included making information available quickly and on demand, providing information portability, enabling obsolete information to be updated/deleted in a timely manner, enhancing the cost-effectiveness of information provision, and improving the processability of information. This last characteristic, information processability, was shown to represent a breakthrough in information provision to consumers due to the computer assisted processing capabilities of videotex.

INTRODUCTION

Videotex systems represent a currently available, although underexploited, distribution channel for the provision of consumer information. Consumer information, for the purposes of this paper, is defined as price (suggested retail as well as actual prices), feature, and quality/performance product evaluations. Videotex refers to systems that enable persons with a terminal or personal computer to access information and services on-demand, using telephone or cable lines as the means of carriage. The potential strengths of videotex as a consumer information medium include the manipulation, analysis, and control of information and immediate access to the information source. In short, videotex represents not only a means to make information available, but provides the capability to augment the visual evaluation of information with computer assistance.

Thorelli (1980) predicted that the "next breakthrough in CI (consumer information) programs will be the computerized CT (comparative testing) utility." He stated that the greatest inherent advantage of these systems is the "dialog feature" which makes possible the tailoring of information/advice to individual preferences. The "dialog feature" can be thought of as the interactive capabilities between information seekers and the information provider, made possible by computer-assisted search and evaluating programs. Thorelli presciently concluded that new communications technologies provide "tremendous potential for the creation of new CI programs."

Other authors have also called for research and development of consumer information systems that capitalize on the strengths of emerging technologies. Beales et al. (1981) stated:

"There is a need for efficient systems that deliver information that is tailor-made to specific consumers, and viewed as reducing rather than increasing the consumer's cognitive efforts. ...such systems will have to incorporate the advances in both new hardware technology and consumer information processing research."

The realization of such information systems has not yet been fully achieved, although practitioners and researchers have implemented and studied alternative methods that use computer assistance in the delivery and analysis of product information. The videotex medium seems particularly well suited to satisfying the objectives of a consumer information (CI) system. This medium, therefore, will serve as the focal point of the following discussion. Most of this discussion, however, could also be applied to related technologies, such as touch screen type applications, expert systems, and the provision of information on floppy disks that could then be analyzed on personal computers.

This paper will first examine how videotex satisfies the objectives of a CI system in general. Following this, specific methods of presenting consumer information will be explored. The latter discussion will include an analysis of traditional paper based formats that could be presented over videotex, as well as computer-assisted methods that might enhance the acquisition and evaluation of CI. Before commencing with these focal points, however, a brief review of the nature and characteristics of currently available videotex systems will be provided as a frame of reference for the subsequent discussions.

CURRENTLY AVAILABLE VIDEOTEX SYSTEMS

In the United States there are over 650,000 subscribers connected to one of three major, national, text-driven (i.e., no graphics) videotex systems that include a consumer orientation (other systems also exist that have, by and large, a pure business mission). CompuServe (owned by H & R Block), the largest, has about 350,000 subscribers with an additional 8,000 being added each month. Dow Jones News/Retrieval has over 250,000 subscribers with roughly 4,000 being added each month. The Source (owned by Reader's Digest) has been holding steady over the past few years with about 60,000 subscribers.

Since these systems are similar, this section will examine only CompuServe as an illustration. In addition, a discussion of Comp-U-Card, a provider of information over all three systems, will be presented due to its innovative method of providing some types of CI.

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## CompuServe

To connect with CompuServe, consumers need a telephone, computer or terminal, and a modem. It is also necessary to have software that enables the consumer's computer to "talk" with CompuServe's computers. The software package, which costs about \$40, includes a usage credit to familiarize new subscribers to the system. Hourly rates vary depending on the time of day and the speed (baud rate) of the consumer's modem. In general, however, the typical home user will pay \$6.00 per hour, using the slowest baud rate (which delivers information a bit faster than most people can read), during off-peak evening and night time hours.

The most popular services include the Electronic Mall, simulated CB where subscribers "talk" to each other, a national bulletin board, interactive games, and special interest group forums. Other services include financial and reference information, an online encyclopedia, travel and leisure information, news, sports, and weather, electronic magazines, and so forth. For an additional annual fee, subscribers can obtain Comp-U-Card which is discussed below.

### Comp-U-Card

The videotex element of Comp-U-Card's services constitutes a pricing and purchasing service that enables members to obtain suggested retail and "lowest" available prices, as well as a listing of each product's features. Price quotes for products carried on the system are generally 30 to 50 percent below suggested retail. Members pay \$25 per year for the service and, according to Friday Report (1986), 4,000 new subscribers are being added to the videotex based service each month.

Comp-U-Card has stated that most members use the service for pricing information that can be used as leverage in negotiations with local retailers (Talarzyk 1986). Comp-U-Card, however, did report selling \$90 million worth of products in 1985. Comp-U-Card began providing subscribers with computer-assistance in acquiring price/product information in 1981. A discussion of the system employed by the firm will be presented later in this paper.

### THE OBJECTIVES OF A CONSUMER INFORMATION SYSTEM AND VIDEOTEX CAPABILITIES IN SATISFYING THEM

Russo (1986) states that "the success of any information system for consumers depends upon consumer acceptance and use." Maynes, Morgan, Vivian, and Duncan (1977) identified six relevant objectives in designing and evaluating the value of consumer information systems. To a significant degree, the achievement of these objectives will determine consumer acceptance of consumer information delivered over videotex. These objectives, somewhat modified for the purposes of this paper, include the availability, portability, delivery time, updating capabilities, dollar cost, and processability of information provided in a CI system. Another objective, market compatibility, has been added as an additional criteria. It is suggested here that each objective either is or could be posi-

tively addressed in regards to the dissemination of information over the videotex medium.

First, information can be made available where the consumer wants it--at home or at the point of purchase. A second related advantage is that the information delivered through videotex is portable, providing the consumer has a printer. Third, the information can be acquired quickly and on-demand, as opposed to requiring information seekers to retain back issues of consumer publications or make library searches for relevant information.

The fourth objective is the provision of perishable information, which can be updated in a timely fashion by the information provider to avoid the problem of obsolescence. Providing perishable information enables the information provider to reduce economic losses since "purchased" information becomes obsolete over time, thereby encouraging repurchase by information seekers and mitigating losses due to the transfer or resale of information.

The fifth objective is to provide information in a cost effective manner for both the supplier and buyer. Since videotex simply represents an alternative distribution channel for information already held by the information supplier, many of the costs of providing CI over videotex have already been incurred. That is, the costs associated with the research and development of the information are sunk, and new costs associated with distribution over videotex are not likely to be prohibitive since the videotex systems themselves currently exist. Although an indepth cost analysis is beyond the scope of this paper, it seems that market potential (discussed below) might be strong enough to offset the costs of distribution.

The sixth objective, market compatibility, investigates the likelihood of whether videotex subscribers are also likely users of information provided by product rating organizations. The markets seems very compatible since the profiles of videotex subscribers (Talarzyk 1986) match up quite closely with the profiles of subscribers to product rating magazines/services (Thorelli, Becker, and Engeldow 1975, McEwen 1978).

Thorelli, et al., for example, state that subscribers to Consumer Reports are wealthier and better educated, own a wider range of goods, are more communication active and more careful planners, are primarily male, and tend to be younger (heaviest users in the 25-34 year old age group) than the "average" consumer. As McEwen (1978) states, the profile represents "the person with the money, the communication skills, and the motivation to use intensive, objective product information." This profile matches up almost identically with the profiles of subscribers released by CompuServe and other videotex system operators (Talarzyk 1986). The videotex subscriber, therefore, represents a likely candidate for the use of electronically delivered CI.

The last objective of an information system is to enhance the processability of the information and/or enable information seekers to obtain only as much or as little information as is desired. This sixth objective is the focus of the balance

of the paper and will be discussed in greater depth below.

In summary, it seems that the videotex medium inherently possesses significant advantages in regards to the provision of CI information. These strengths have not, however, been taken advantage of by organizations that provide consumers with expert product evaluations. A medium such as videotex, which lends itself so well to the provision of expert evaluations, would seem to be a very viable and useful method for enhancing information search by consumers.

#### METHODS TO ENHANCE THE PROCESSABILITY OF INFORMATION

Past research indicates that consumer utilization and acceptance of information hinges upon a cost-benefit analysis from the consumer's perspective; that is, the perceived benefits of information acquisition (e.g., paying lower prices and making better choices) using a given system must exceed the costs of acquisition (e.g., dollar costs, time costs, and mental and physical effort costs) (Stigler 1961, Russo 1986, Shugan 1980).

Videotex was shown in the previous section to hold promise in regards to: enhancing the availability of CI, by providing it where and when it is needed to videotex subscribers; in reducing time and physical effort costs related to CI acquisition; and in potentially keeping the expenses to create information and reach relevant markets at a reasonable level.

This section examines the remaining dimension, the processability of information, by analyzing methods that could be employed within a videotex framework that could lessen the mental effort required in the acquisition and evaluation of CI, and, perhaps, enhance the quality of the decisions made. The type of information used as the focus of the discussion will be expert evaluations of attributes such as those found in Consumer Reports, Software Digest, and other product rating magazines/books.

Russo, Kreiser, and Miyashita (1975) make a clear distinction between information availability and processability. They argue that the more processable the information is, the more likely that it will be used. These and other researchers (Crosby and Taylor 1981, Bettman 1979, and Wilkie 1975) have noted that information suppliers have often solely concentrated on increasing the amount of information available, without fully considering processability issues.

The two traditional methods of enhancing information processability have been to (1) provide information in formats which facilitate brand evaluations and interbrand comparisons, and (2) to "preprocess" or summarize brand information for the user in some fashion. Videotex allows for the development of a third method, the (3) provision of computer aids to the consumers to assist them in the acquisition and evaluation of CI. Following is a discussion of the characteristics, strengths, and drawbacks of each method.

#### Method One--Formats

Information provision formats, used alone, simply provide information in organized structures without attempts to make recommendations by the information provider. The three standard formats used to provide information include by-brand, by-attribute, and the brand-by-attribute matrix forms of presentation (c.f. Bettman 1979 for an in-depth discussion about each format).

The by-brand format enhances the formation of an overall brand evaluation. It does not facilitate, however, interbrand comparisons on individual attributes. Information about a brand's attributes is simply listed in one place, as is the case of information on the packaging of grocery store items, which makes attribute comparisons across brands difficult relative to the following methods.

The by-attribute method lists all brands' performances on a given attribute, usually in from best to worst order. Runner's World, for example, lists brands according to their performance on each of eight attributes. The decision maker, therefore, must combine information about a given brand from eight different lists, providing all eight attributes are relevant, to form an overall evaluation. This intrabrand combination task is a difficult one that likely precludes the overall evaluation of but a few brands.

The third traditional format is the matrix format. This format is the most widely used one by product rating organizations. The familiar Consumer Reports brand-by-attribute matrix is an example of this format. Consumer Reports goes a step further, however, and ranks the brands in from best to worst order based on the organization's view of overall quality/performance. This latter step is discussed below under Method Two. The information provider not desiring to impart its values in the presentation of information (necessary to combine ratings on multiple attributes), would likely present the brands in alphabetical order.

Studies comparing the value of the three formats indicate that the matrix format provides for quicker decision making and, when given a choice, is the preferred format by decision makers (Bettman and Zins 1979). Indeed, processing by either attribute or brand is facilitated with equal ease by the matrix format and would, on an a priori basis, appear to constitute the superior format in which to present product ratings.

A number of consumer researchers have encouraged information providers to adopt the matrix format (Capon and Burke 1980, Bettman 1975 and 1979, Russo et al. 1975; Wilkie 1975). The same recommendation is extended here to providers of electronically disseminated information. Finally, it is relevant to highlight that the matrix format can be used in conjunction with the following methods, which provide either rater recommendations or computer aid to the decision maker.

The major problem associated with using formats with no other aid provided to the decision maker (e.g., the matrix format with brands listed in alphabetical order) is that when the number of



brands presented increases beyond five or six, decision makers have regularly been observed to adopt a phased processing approach (Payne 1976, Lussier and Olshavsky 1979, Billings and Marcus 1983). The first stage of phased processing constitutes a brand elimination phase. That is, decision makers typically use brand elimination heuristics (e.g., elimination-by-aspects and the conjunctive rules) to reduce the choice set to a relatively small number alternatives, which are then thoroughly evaluated. The use of screening heuristics means only a portion of all available information on the eliminated brands has been evaluated, which is at odds with the normative compensatory view of choice. The normative perspective assumes that all information has been evaluated and balanced to arrive at a decision.

The observed incorporation of a brand screening phase by decision makers, in choice sets of even moderate size, therefore, opens the possibility of mistakes (screening errors) being made. Further, with larger choice sets (those including roughly 10 or more brands) information overload might occur (Malhotra 1982, Jacoby et al. 1974), possibly resulting in random choice-like behavior. Finally, large choice sets are also more likely to result in the adoption of "pure satisficing" behavior, leading to a "choose the first acceptable brand" decision rule (Widing et al., 1986). Both of the latter courses of action might lead to the choice of not only a "lesser" brand for the individual, but possibly to the selection of a dominated alternative (a brand beaten by another alternative on at least one attribute and is no better than tied on the remaining attributes), which constitutes a clear-cut choice error.

In conclusion, the matrix format appears to be the superior "unassisted" format to present brand ratings. As the number of brands on which information is presented grows beyond five or six, however, processing errors are increasingly likely to occur. Given that it is not uncommon for 20 or more brands to be available for evaluation, the matrix format provides limited capabilities in enhancing information processability.

#### Method Two--Summary Ratings

A summary brand evaluation is an overall measure of a brand's performance/quality that is obtained by combining the scores of the individually rated attributes. The summary evaluations have typically been used to rank brands in from best to worst order. Oftentimes, the actually overall brand score is not provided and the rank order itself serves as the summary evaluation. In addition, the individual attribute ratings for each brand are generally available for perusal by the information seeker in a brand by attribute matrix.

The major problem with summary evaluations lies in the process of combining the attribute ratings to obtain an overall brand evaluation. In order to accomplish this task it is necessary to use some model to combine the individual attribute scores. The linear model, using "importance" weights to modify the contribution of each attribute to the overall evaluation, is typically used by ratings organizations to obtain the sum-

mary ratings (Beales, et al. 1981, Newman 1977, Software Digest 1984). This procedure constitutes the most critical and controversial problem with summary ratings; that is, people do not necessarily apply the same weights that the evaluator does (Day 1976).

Beales, et al. (1981), for example, report that magazines such as Consumer Reports suffer from a problem common to third party information providers, the inability to tailor information to one's own requirements without extensive effort. The authors stated that "the recommendations are most useful for consumers who place the same importance on the attributes as did Consumer Reports in determining summary ratings." While the consumer may elect to sort through the scores in a brand by attribute matrix accompanying the recommendations, this process is time consuming, mistakes can be made, and such a search might not be undertaken due to an inability or lack of willingness by the consumer. For individuals to gain control and use their own values in evaluating the information, therefore, they must spend time and effort to do so. Paradoxically, to the extent consumers do evaluate the individual attribute scores, the value of the summary rating is reduced.

Since importance weights are a matter of personal preference, a number of consumer researchers have opposed the provision of summary ratings (c.f., Day 1976). The primary arguments against summary ratings, due to the rater weighting scheme necessarily employed to obtain them, are that consumers might be misled (Winter 1975) and that they are inherently discriminatory against all but the top rated brand (Wilkie 1974). While summary ratings, accompanied by a brand by attribute matrix of scores, could certainly be provided over the videotex medium, this approach would suffer from the same limitations as those present in print versions.

#### Method Three--Computer-Assisted Processing

##### Computer-Assisted Cutoff Models.

Videotex provides the capabilities to provide consumers with computer assistance in the acquisition and evaluation of information. Examples of computer assistance as a tool to augment consumer information processing are beginning to emerge. Comp-U-Store, for example, provides consumers with the capability to screen out deficient brands through a conjunctive-like format. That is, users may specify "cutoffs" or required characteristics and only those brands that meet or exceed the specifications will be displayed for further visual evaluation by the consumer.

An example using the microwave oven product class is provided here to illustrate how an electronic version of the conjunctive model is used by Comp-U-Card. Consumers are first asked to specify the highest price they are willing to pay and are then asked to identify desired features from a series of multiple choice options. These options ask users to indicate if a countertop, wall mounted, or above range model is desired; to select desired power levels and cooking procedures; and to designate size/capacity, necessary

features such as rotating shelves, and such. Only those brands that satisfy the specified requirements are made available for review.

Comp-U-Card's information acquisition format apparently reduces the effort required to search and has been reported to have led to a sharp increase in information usage shortly after its inception (Widing and Talarzyk 1982). Since a number of product classes featured in Comp-U-Card's database include upwards of 150 brands, computer-assistance seems to be a necessary tool for coping with these extremely large information loads. A similar conjunctive (i.e., cutoff) model could also be developed for analyzing product ratings; indeed, the number of brands presented to consumers could be greatly increased, while mitigating the possibility of information overload, by using this approach.

The computer-assisted conjunctive model, however, has no normative underpinnings in regards to indicating the "optimal" choice. The minimum values set may often not be true minimally acceptable, "must have" specifications, but standards of convenience useful in reducing the numbers of brands needed to be thoroughly evaluated. The model, therefore, is at best a "satisficing" model (Simon 1955) that is useful in reducing the effort required in choice. Although it is likely that the cutoff model will lead to the selection of a satisfactory choice, the procedure might preclude the selection of a more preferred brand. This is due to decision makers setting cutoffs that are not truly minimal, only desirable. The possibility exists, therefore, for a decision maker to screen out what would have been the preferred brand had it been thoroughly evaluated. Widing, et al. (1986) demonstrated this in a study which indicated that a significant proportion of decision makers did indeed inadvertently eliminate more preferred brands (determined after the choice task) with a computer-assisted conjunctive model.

#### Computer-Assisted Linear Models.

The second computer-assisted model that has been used in decision aiding, although not on videotex systems, is the linear model (i.e., weighted averages). This is the same model used by ratings organizations to generate overall evaluations for each brand, which are then used to rank order brands in from best to worst order.

Linear models have been advocated by decision scientists for structuring and aiding personal and group decision making (Edwards et al. 1977). The procedures advanced by Edwards and his associates are, in essence, identical to those used by rating organizations (Newman 1977), except that the individual's importance weights, as opposed to the rater's weights, are used to generate the weighted average brand scores. The procedure may not guarantee that the best choice will be made, (Edwards et al. 1977) but that at least a good choice will be made (providing the individual's importance weights have been used).

Following is an illustration of this approach using Software Digest (1984), the "Consumer Reports" of the computer program industry, as an example. Typically, Software Digest evaluates between 20 and 30 brands of a given type of

software program (e.g., wordprocessing, spreadsheet, database management) in each issue. Each brand is rated on a 0 to 10 point scale on 6 attributes. These include various "Ease-Of" attributes, performance, versatility and error handling. The scores for each brand are weighted by their importance, and the weighted scores are added together to obtain an overall evaluation. The brands are then ranked in from best to worst order according to these weighted averages. This importance weighting procedure has been cited earlier as the major shortcoming of the summary rating approach.

Software Digest, however, added a new service that overcomes this limitation by allowing the user to personalize the brand evaluations and subsequent rank orders. This is done by allowing the consumer to specify the attribute importances, which are then used to generate the weighted average for each brand. Provided below is a description of the service in Software Digest's own words:

"Accompanying each Primary Data Report will be a disk duplicating the printed data. The disk will also contain a special program enabling you to assign your own relative weights to the various evaluation criteria and automatically calculate ratings and rankings of the programs to determine which programs are best suited for particular requirements."

This service could be offered by other third party rating organizations over the videotex medium. Since the primary objective to currently available summary ratings is the rater weighting of attribute information, which might unduly influence decision makers, this approach eliminates a major point of controversy. In addition, it enhances the likelihood that better decisions would be made on the part of the consumer. Providing that certain conditions are met concerning the nature of the attribute information, this procedure might reduce processing errors and effort in search, and increase the quality of the choice made. This is due to the higher scoring brands on the most important attributes being ranked towards the top of the list.

Since linear models have been repeatedly shown to be robust in the prediction of preferences (c.f., Dawes 1979) and are consistent with normative decision making criteria (i.e., use all available information and balance the information), the provision of linear models seems appropriate. One major constraint to the use of the linear model in such a fashion is that the attributes used in the model must meet the monotonicity assumption. That is, the higher the attribute score, independent of the other attributes, the greater the preference for a brand.

The information provider, therefore, must be able to assume that a higher score on an attribute is better for all (or most) people, or at least not worse. This rules out including attributes best described by ideal points across individuals (e.g., violence or sex in movies, sweetness or spice levels in foods), as well as attributes in which all (or most) people do not share a common direction of preference (e.g., racial balance in schools when evaluating places to live--for some people the greater the level of integration the

better and, for others, the less the integration the better).

Fortunately, most of the attributes evaluated by expert organizations meet the monotonicity assumption. For example, people like better performance/quality than worse (independent of other attributes), prefer things that are easier to use than more difficult to use, and so on. A computer-assisted linear model, as described above, therefore, is especially appropriate to provide in conjunction with evaluations made for most product classes.

The personalized rank order of brands, nevertheless, ought to be accompanied by the individual attribute scores in a brand by attribute matrix. This is because factors other than the weighted average of attribute scores might enter into the choice process. For example, the brand with the highest weighted average may possess one attribute score that is too low for the individual, resulting in preference for another brand. The format should, in any case, provide for the enhanced organization of information due to the best to worst ordering generated using the decision makers importance weights.

#### CONCLUSION

Videotex, as a medium to provide consumer information, has been evaluated on several levels in this paper. The medium was shown to satisfy the objectives of an information system in a number of ways. Videotex provides a means to make CI readily available, quickly and on demand; enhances the portability of information (with the aid of a printer); allows for the timely updating of obsolete information; offers the potential of being reasonably priced; and offers a subscriber base that matches up quite well with the profiles of actual users of product ratings and price information. As a CI system, therefore, videotex seems to offer a great deal of promise.

In addition to the advantages offered by the general system characteristics, videotex offers the potential to enhance the processability of consumer information relative to that provided by traditional print presentation methods. Computer-assisted methods were described that might reduce both mental effort and errors in decision making and, possibly, increase the likelihood of information usage and enhanced decision making.

The computer assisted methods provide new opportunities to overcome problems associated with satisficing behavior and information overload, while actually enabling an increase to be made in the amount of information (i.e., number of brands and attributes) from which to make product related decisions. In addition, problems associated with the weighting and ranking of brands, according to the rating organization's perspective, can be overcome through the provision of individually weighted linear models.

Although the provision of rating information over videotex with traditional paper based methods can be easily accomplished (e.g., ranking brands from best to worst accompanied by attribute scores in a brand by attribute matrix), these methods do

not take advantage of the unique strengths of videotex systems. These strengths include the computer assisted capabilities of combining, sorting, and ranking information according to user desires.

It is also important, however, to conduct further research on the computer assisted processing methods. Research on the advantages, pitfalls, and tradeoffs of alternative methods, some of which are yet to be identified, needs to be undertaken. For example, the finding cited earlier, concerning the possibility of decision errors with the conjunctive model, constitutes a pitfall which needs to be more fully researched.

Pittle (1984) discussed a situation where Consumer Reports staff people tried their hands on a computer program that would allow consumers to assign their own weights to various performance factors to produce their own personal rankings. He reported that in a test on video cassette recorders they could not do it. He stated, "Confronted with an array of more than a dozen features and performance attributes that CU had tested, they simply had no basis to make judgements about weighting the individual quality factors. They threw up their hands in despair."

Our research indicated, however, that with some instructors, subjects could make the necessary judgements and work with the resulting evaluations. The experiences of the CU staff do point out the importance of understanding how to present the information to consumers and how to train them to use the system. Much more research needs to be done in this area.

Specifically, research on computer assisted methods/models is needed to: identify potential sources of error of alternative computer assisted methods; determine the value of alternative methods/models over currently available alternatives and each other (e.g., on issues such as decision quality, effort, and time); measure consumer reactions to alternative models (liking, usefulness, and such); examine how difficult alternative methods are to learn and use; as well as to study other issues related to the value of computer assisted decision making.

The authors recommend that the providers of product rating information begin to present their information over videotex systems and research the capabilities and problems associated with computer assisted tools. This would likely add value not only to the product rater's offering, but to the value of videotex systems in general. Further, and most importantly, videotex delivered consumer information would represent an additional step towards the goal of having consumers making more informed product decisions.

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FORECASTING PUBLIC POLICY ISSUES AFFECTING CONSUMERS  
IN DIRECT MARKETING: AN ANALYTICAL APPROACH

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ABSTRACT

A large menu of recent specific consumer issues and problems are indicative of some of direct marketing's characteristics. More comprehensive methods of evaluating this industry's interactions with consumer interests, however, are needed to identify future issues of significance.

The continued growth of innovations in direct marketing will make it an even more important industry affecting consumers in the future. Directions for public policy research are suggested to improve the forecasting of likely conflicts and issues.

INTRODUCTION

Direct Marketing is a rapidly growing and significant form of marketing that has received little comprehensive review from the perspective of the consumer interest.

There is a compelling need to analyze the field because of notable inattention to the subject by analysts outside of the industry generally. The consumer interest is but one facet, long neglected.

The industry is rapidly changing due to information processing technology advances and expanded use of video technology among other developments (1).

More serious to the consumer interest are visible and recurring consumer privacy and deception issues illustrated by the following specific occurrences. Most are unusual compared to other forms of retailing and some can only occur in direct marketing situations. The specific cases justify further inquiry and raise larger policy questions for research.

Common and acceptable practices in direct mail marketing include:

1. Not disclosing postage and handling charges in advertising. Much advertising features prices to which such charges will be added and the charges can exceed the price of the product.
2. Not disclosing key terms of book club (and similar subscription) purchases such as advance notification of shipments, all costs involved, and cancellation requirements.

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3. Negative option subscription-type selling plans where customers must refuse every offer they do not want to receive and pay for over an extended period.

4. Undisclosed refund policies which often do not include postage reimbursement.

5. Misleading contests in which as many as 24 companies are using, simultaneously, the same contest prizes. Customers are not clearly told that the contest prizes will be divided among entrants from many companies rather than just the customers of the one soliciting their business.

Common and acceptable practices in telephone marketing (telemarketing) include:

1. Calling at any time of the day.
2. Calling anyone regardless of his preference not to be called.
3. Calling persons with unlisted telephone numbers.
4. Using automatic dialing systems and recorders which call anyone.

Common and acceptable practices in direct marketing via television include:

1. Refund policies and information which are disclosed only in the original television advertisements. Firms and their addresses for refund purposes may not be disclosed with the order itself.
2. Unverifiable comparative prices used by some shopping networks imply discounts in excess of 50% are offered on most products.
3. Instant impulse decisions are pressured for or required on complex shopping goods such as electronic items and sophisticated jewelry. Such standard practice is not considered as a sale on approval or for examination although sales are subject to full refund.

These practices are neither effectively regulated nor prohibited under federal law. They sometime confound and irritate consumers, but also may occur without any notice or adequate information. They largely escape the reach of state regulators. While many are of concern to progressive members of the direct marketing industry, self-regulation is largely concerned with privacy issues rather than deceptive practices. Self regulation, of course, has no force of law to deal with firms who elect not to

observe the ethical standard of their competitors.

In this paper, these and other issues are the focus of the analysis of the industry and its interactions with the consumer movement.

#### DIRECT MARKETING INTERACTION WITH THE CONSUMER MOVEMENT

Direct marketing organizations operating in the consumer marketplace ultimately have identical interests with consumers.

To the extent that consumers are satisfied, direct marketers should profit in a well run or orderly market. Even non-profit and political organizations need to utilize marketing as an organizational imperative because it serves and satisfies human needs, however they may be developed (17).

Consumerism, a movement representing the interests of consumers, however, has evolved, in part because the interests of consumers have not been adequately served.

Peter Drucker and others have called consumerism the result of the failures of marketing to do its job in the economy (6).

While Drucker is typical in his criticisms of marketing based on the classical economic axiom that the purpose of all production is consumption (i.e. consumer satisfaction), like others he had been also more positively optimistic about the social potential of marketing a few years earlier before the resurgence of the consumer movement (5).

Experiences of many industries with consumerism have been both positive and negative. Clashes with consumer organizations and representatives have led to outcomes ranging from new laws and regulations to innovative marketing approaches. Cooperation with consumer organizations has alleviated problems, increased communications, and stimulated voluntary changes in the marketplace to the advantage of producers and consumers.

Burgeoning growth, some experience with consumer and government criticism, and innovative marketing practices, together suggest that direct marketers also stand to benefit from an understanding and appreciation of consumer organizations.

In a complex society of institutions and groupings of interests, consumer groups find educational, social, political party, and religious organizations will on occasion become involved in consumer public policy matters as well.

Given the breadth of the consumer movement and its flexibility in responding to nearly any matter affecting consumers, direct marketing can expect interaction with consumerism.

There are a number of identifiable generic characteristics of the industry which increase the probabilities that it will need to anticipate and understand the consumer movement's purposes, methods and abilities to achieve its policy goals.

#### CHARACTERISTIC OF DIRECT MARKETING OF IMPORTANCE TO THE CONSUMER INTEREST

1. Direct consumer contact eliminates the difficulties that many individual consumers have in ascertaining the responsible selling parties in complex marketing systems. It is difficult to act against an array of sellers in traditional systems when the manufacturer is difficult to even locate, a series of middlemen are involved, and the retailer is the only direct contact. Mixed local, state, or federal jurisdiction may complicate the pursuit of a complaint against the parties. The various firms involved can delay and confuse all but the most determined consumer, consumer organization, or even a third-party complaint handling agency. The direct marketer can rarely hide his company from complainants and thus may be less inclined to avoid responsibility for an alleged consumer problem.
2. Direct marketing, especially pre-sale activities and communications strategies, is highly visible to consumers. Consumers are able to evaluate what they can see and hear, and adverse reactions can occur. Print media are especially susceptible because such communications can become documents in a complaint or other consumer action. Radio and television ads can also be recorded for legal purposes. A large scale promotion is legally vulnerable because essentially only one valid complaint can lead to serious problems for the seller.
3. The direct marketer often relies on a single forceful communication to produce many sales results. The direct response from a single mail or phone communication can mean the full decision process, subject to many influences beside the efforts of marketers, occurs: a sale is made (24).

Much literature on consumer decision making uses multi-step concepts such as "AIDA", (Attention, Interest, Desire, Action), or "AIETA", (Awareness, Information, Evaluation, Trial, Adoption), but more complex models are also found. Marketers create a sale, contribution, or other revenue response only if consumers are successfully led through all the steps and meet all the conditions of the model.

In order to achieve sales responses, direct marketers must get attention, provide appealing information, make the person want to take some action (such as the preference or choice of a service, product, or even a political cause), and then usually commit

money. The appeals and information necessary to accomplish all of this may be powerful, considered illegal or offensive by some, and thus generate complaints (22, 25).

4. The mail and telephone seller is often operating from an outside community or from another state. This marketer may be unable to get equal treatment compared to competing local firms, usually retail stores. There is little face-to-face ordinary communication with local regulators, law makers, third-party complaint handling agencies, and the consumers themselves. Unless the problem is especially grave and thus worth travel costs or retaining local representation, the direct sellers are strangers and unknown. They may get uneven treatment partly because they cannot negotiate efficiently from afar and partly because they are not "home" businesses from the community or state. Customer perception of the distant company is essentially that it is "foreign" or not part of "the community." This lack of local identity magnifies the fears of consumers who cannot contact the seller quickly and without expense to clarify, confront, or otherwise communicate readily. Consumers who prefer personal contact such as is possible with retail stores may not be fully satisfied at all with direct marketing methods. Fear and distrust, often aroused by the pre-sale direct communication and also by post-sale experiences, can cause consumers to react and complain strongly.
5. Special laws and regulation aimed at direct marketing simply don't apply to other general marketers (8, 9, 10).
6. The current image of direct marketing is hampering its relations with consumers and public policy makers. There are off-setting positive elements in the image as a result of specific customer policies, trade association standards, and positive customer experiences (12).

The degree of customer problems is reflected in part in attempts in the past in law and regulation as well as innovative trade programs to deal with the issues.

The Direct Marketing Association has maintained a Mail Preference Service since 1971 and a Telephone Preference Service since 1985 to allow consumers to be removed from customer lists of direct marketers who cooperate in the programs (2, 11). These programs have possibly staved off legislation which would have been more restrictive (7, 21).

There have been specific scandals involving direct marketers which have drawn media attention unfavorable to the industry (16). As a result, routine advice given to consumers tends to describe direct marketing as especially treacherous and risky (3, 13, 15, 20, 23).

Ease of entry into the direct marketing field is possible with a very modest amount of resources. There is essentially little required beyond the simplest of communications such as classified advertising or a few pieces of mail to enter the business. There are no licenses, capital requirements, or other pre-market hurdles for many goods and services marketers. Some amount of deceptive direct marketing by unregulated new entrants will succeed in ensnaring customers for the foreseeable future.

The frequent fact that potential customers will be receiving communications from unknown, unfamiliar, and distant sources can only contribute to the perception that direct marketing is not as trustworthy a marketing method as its competitors. Distance alone is a factor in causing fears in customers that service, complaint resolution, and handling of problems will be difficult. Many marketers have developed policies to deal with this concern.

Contributing further are frequently observed industry practices which customers often find repugnant. Kurtz lists a litany of techniques, such as official looking envelopes. He further declares that there is little to fear as a seller when an otherwise reputable mailing can result in a few "deceived" prospects that generally don't hurt the bottom line results (18). The "negative option," a direct marketing institution, remains objectionable to many consumers in spite of its long history (4).

Teaser methods are widely used because the opening of the envelope is such a cornerstone of successful mail marketing dogma. Even telephone marketers often must mask their intent with customers, too. As marketers seek to find ways to cause consumers to open mail and stay on the phone, even sharper practices are likely.

Consumers have often cited their frustrations with some direct marketing practices. Largely, consumer frustration has not yet been followed by laws or regulations to rid the practices that offend. This has not been for lack of suggested remedies, however (14).

In particular, computer automated dialing telephones have been receiving the attention of the Federal Communications Commission. The U.S. Office of Consumer Affairs supported limits on their use in 1978. Humorous tactics to befuddle unwanted sellers or other callers are becoming an item of some cultural significance in the U.S. (19).

#### FORECASTING CONSUMER ISSUES IN DIRECT MARKETING IN THE FUTURE

Consumerism is likely to continue in importance to direct marketing simply because of the range of problems and potential problems in combination with millions of diverse contacts and transactions daily.

The difficulty is found in identifying major priorities at any given time in the evolution of the movement as well as the industry. The most reliable approach to constructive methods of problem solving for the industry is early recognition of issues and practical approaches to their resolution. Individual firms' behaviors, of course, will continue to be the underlying cause of consumer group responses. The industry may be able to solve many problems through prevention policies that recognize the concerns of consumers and their representatives.

There are likely to be clashes and problems in so diverse an industry. The characteristics of the industry such as geographic distance, high visibility, special laws and regulations, ease of entry, and especially the widespread questionable practice of many of its members appear to guarantee serious conflicts with consumers concerned with privacy and deception. The industry is progressive in its initiatives on privacy, but it has yet to prove its ability to control widespread deceptive practices of fringe operators. Highly regarded members of the industry have their share of questionable practices and consumer confrontations appear inevitable.

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USING A "SHAREWARE" SPREADSHEET IN AN INTRODUCTORY  
PERSONAL FINANCE COURSE

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The use of computers in small personal finance courses is not uncommon, but computer use in introductory courses is probably limited by the mechanics of dealing with large numbers of students. There are also either legal or financial problems with most software. Even some software with special classroom prices may cost \$30 per student. One solution can be public domain software, although often this type of software may suffer from inadequate documentation and flaws. Shareware provides a similar solution. One example of shareware software is "AsEasyAs", which is a spreadsheet program similar to Lotus-1-2-3. "AsEasyAs" is copyrighted, but the first screen that appears contains the message "You are encouraged to copy and share this program (but NOT the manual) with other users..." Thus, with appropriate templates (including some developed for Lotus-1-2-3) each student can be provided with his or her own program disk, to use in any computer lab with an IBM-compatible computer, or on his or her own personal computer. An earlier version of "AsEasyAs" contained numerous 'bugs', but the latest version contains a detailed manual and worked well for two templates used in an undergraduate class of 90 students. It may be ordered for \$30.00 from TRIUS, Inc., 15 Atkinson St., Lynn, MA 01905.

The educational purpose of giving students experiences with financial software is not obvious. With limited time and a diverse group of students, one must be very selective. For a class of almost 90 students in an introductory, sophomore level course, "Family Financial Management", I chose to develop two spreadsheet templates, one for an annual budget, and one for net worth projection. The templates included some hidden calculations. For instance, the net worth template starts with a net worth statement for today, then if the student enters average annual contributions to various types of investments for the next 10 years, the future value of each type of asset will be calculated. The future balance on a home mortgage is calculated, etc. A student can carry the projections through for the next 20 years. The annual budget template calculates approximate USDA food budgets for comparison, along with federal and state income tax calculations. Students are encouraged to use a hypothetical family or their own if it is more complex than a single student living in a dorm.

The student is able to experiment and see the effect of changes on the annual deficit/surplus or on net worth without making tedious calculations.

I developed very detailed instructions for each exercise, so that students with some computer background might be able to work on their own. For most students, time was scheduled in a campus computer lab with 20 computers. Some students did not know how to turn on the computer, while others were more sophisticated. After about an hour of work in the lab, many students were capable of continuing independently.

I will provide copies of the instructions, and a copy of the spreadsheet (without the manual) and the templates to anyone sending a blank 5.25 inch double sided double density disk in a SASE disk mailer. The disk should work on any IBM-compatible computer. Send to: Sherman Hanna, The Ohio State University, 1787 Neil Avenue, Columbus, Ohio 43210-1295.

There are two batch files on the disk which allow the user to start the spreadsheet automatically by booting the computer or by typing EASY after the computer is on.

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## FINANCIAL SATISFACTION IN RELATION TO FINANCIAL MANAGEMENT

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### SUMMARY

#### Purpose

The purpose of the study was to determine the extent of adoption of selected financial management practices by Extension Home Economics program participants. Research interest was focused on the relationship between the adoption of selected financial management practices and the level of satisfaction with financial management. In addition, the relationship between level of financial satisfaction and the following variables was determined: age of respondent, wage earner status, area of residence, membership in Extension Homemaker Clubs, and number of household members. Information from a 1985 Louisiana Cooperative Extension Service Adult Planning and Management (Home) Impact Study provided the data for the investigation.

#### Methodology

Questionnaires were mailed to 400 randomly selected Extension Home Economics program participants throughout Louisiana. The sample consisted of 203 program participants. Data were analyzed using frequency distributions, chi-square, and analysis of variance. The level of significance was set at  $\alpha = 0.05$ .

#### Conclusion

The Cooperative Extension Home Economics participants in this study had adopted many of the financial management practices which financial advisors recommend. Over two-thirds of the respondents stated that they usually: could find financial records when needed (94%); kept records of bills paid (92%); contacted creditors to reconcile differences (90%); had a plan to pay basic expenses (87%); had a realistic budget for the family (81%); balanced checkbook monthly (85%); saved for emergency expenses (65%); and had personal spending allowances for family members (66%). The participants were less likely to: save for long-term goals (57%); record income and expenses to determine monthly deficit or savings (57%); and prepare a net worth statement to determine family assets and liabilities (31%).

The majority of the sample expressed satisfaction with their financial management. Half (50%) of the respondents were very satisfied, 42% were somewhat satisfied, and 8% were not satisfied.

Satisfaction with financial management was not affected by wage earner status, area of residence, and membership in Extension Homemaker Clubs. Two variables, age of the respondent and number of people living in the home, did significantly affect financial satisfaction. Older respondents were more satisfied with their financial management than younger ones. Three-fourths (75%) of those 65 years of age or older were very satisfied with their financial management situation, while 6% of those under 40 were very satisfied. Those 41-64 years of age ranked in the middle (48%). It is possible that as people became older they had increased income and/or less demands on income (i.e., child care expenses, personal property acquisitions, etc.) and thus felt more satisfied with their current financial situation.

As the number of people living in the household increased, the satisfaction with financial management decreased. It is feasible that the greater number of individuals in the household caused additional strain on income. Another possibility may be that an interaction with age existed. For example, since young respondents were the ones most likely to have children, the younger individuals probably were living in larger households.

The use of financial management practices was related positively to financial satisfaction. With the exception of preparing a net worth statement, larger percentages of respondents who were very satisfied followed the practices as compared with those who were somewhat satisfied or dissatisfied. For example, 84% of those who were very satisfied saved for emergencies, and 45% of those who were somewhat satisfied and 37% of those who were dissatisfied followed this practice.

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## STRESS EXPERIENCED BY DAIRY FARM COUPLES

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### ABSTRACT

The study identified sources, levels and symptoms of stress experienced by dairy farm couples. A random, stratified sample was drawn and interviews were conducted with husbands and wives in 1986. Findings, from preliminary data on 79 couples, showed that about half of the husbands and wives were experiencing each of four stress symptoms. The usual stress level was moderate but levels varied widely over the year.

The close interaction between family life and farming brings all family members into daily contact with the financial problems currently plaguing American farm families. Even those families not experiencing problems are concerned about their financial future. This study is limited to families on dairy farms because the dairy industry is highly capital intensive (USDA, 1985). Many dairy farms expanded during the 1970s and early 1980s under the assumption that dairy prices would remain high and land values would continue to appreciate. Since that time, the opposite has occurred.

The purpose of the study was to identify the symptoms of stress being experienced by husbands and wives living on dairy farms in Utah, as well as the sources and levels of stress.

### METHODS

A random sample of dairy farms was drawn from records of current dairy farms in the state. The sample was stratified by county and by size of dairy herd. The completed sample will be over one hundred dairy farm couples. This preliminary report represents the 79 couples whose data were available for analysis. Two interviewers conducted separate, simultaneous interviews with the husband and wife in 1986.

### FINDINGS

When asked about their health, husbands reported the following symptoms: depression, 49 percent of respondents; tension and anxiety, 48 percent; difficulty relaxing, 45 percent; and trouble sleeping, 41 percent. The wives reported the following symptoms: depression, 47 percent; tension and anxiety, 56 percent; difficulty relaxing, 56 percent; and trouble sleeping, 42 percent.

A ladder scale measured stress levels. Nine represented the most and one the least stress a person is likely to experience. Mean scores for the usual amount of stress in the past year were 4.1 for husbands and 4.4 for wives. The stress levels experienced during the least and most

stressful weeks last year were 2.3 to 7.4 for husbands and 2.1 to 7.7 for wives.

Life events have been found to predict future illness (Rubin, et al., 1969). A list of 48 possible events was read to respondents. They reported whether the event occurred, and, if so, the extent of adjustment made. Adjustment was measured on a five-point scale, with five representing the greatest adjustment. The five life events which husbands reported as requiring the most adjustment were: high debt load, 3.7; own illness, long term, 3.5; own illness, critical time, 3.5; commodity price drop, 3.3; and new government dairy programs, 3.2. Wives mean scores for the five events requiring the most adjustment were: another family member starts drinking heavily, 4.7; retirement, 4.3; own illness at a critical time, 4.2; commodity price drop 3.7; and new government dairy programs, 3.7. Among items which required the most adjustment, two were also among the most frequently occurring for both husbands and wives. These were new government dairy programs and a commodity price drop.

### DISCUSSION AND SUMMARY

The symptoms reported by husbands and wives, indicate they are feeling stressed. Further analysis will be needed to determine whether the source of the stress is the farm's financial situation. Wives experienced slightly higher stress levels. Perhaps the wife's less direct role in farm work and management results in higher stress. Many of the life events which husbands and wives judged to require the most adjustment were related to the dairy farm operation. Family events, after further analysis, may be found to relate to the farm's financial situation as well.

In sum, many dairy farm couples reported several stress symptoms. Many of the life events requiring the greatest amount of adjustment are farm financial factors or may be associated with farm financial factors. Further analysis is needed to determine whether dairy farm couples who are experiencing different financial situations are also experiencing different levels and symptoms of stress.

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A SYSTEMS APPROACH TO ANALYZING CRITICAL FINANCIAL  
MANAGEMENT COMPETENCIES

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ABSTRACT

The purpose of this research was (1) to identify financial management behaviors related to the two primary financial competencies identified by White [5] and (2) to consider the relationship of these competencies to basic management principles. The data suggest that although this middle class sample demonstrated some level of the financial management behavior expected, this behavior did not afford them financial security as most had financial worries.

INTRODUCTION

Recent research of White [5] and Mueller [3] has provided useful insights into financial management competencies in the context of a managerial systems model. White [5], using a Delphi technique with 21 nationally recognized financial experts identified 16 financial management competencies adults need to effectively manage financial resources in the economy expected for the next 15 years. Using "debt-to-income ratio" as the output measure of household solvency, Mueller [3] tested the managerial systems model in relation to household money management. Using these findings and the Deacon and Firebaugh systems model of management [1, 2] as a foundation, this research evolved. The purpose of the study was to identify financial management behaviors related to the two primary financial competencies identified by White [5] and the relationship of these competencies to basic management principles.

METHODOLOGY AND SAMPLE DESCRIPTION

Data were collected in November 1986 from a 50% random sample of the 1,980 county government employees, both service and administrative workers. The county is part of the Washington, D. C. Standard Metropolitan Statistical Area. Usable data were collected from 461 respondents, a 47% return. The sample who responded to the questionnaire generally can be described as primarily white females from dual income, middle class households.

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FINDINGS AND DISCUSSION

The two most important competencies identified by White [5] were: (1) the use of sound management principles in the establishment of a comprehensive financial plan and (2) the identification of goals as a basis for financial management decision making. As a preliminary measure of these financial management factors, this research considered some of the "sound management principles" which would underly the development of such a comprehensive plan.

Results suggest that the majority of the respondents were aware of both their financial goals and resources. Approximately three-fourths (73.8%) of the population reported that they had identified some specific financial goals for the future. Over half (56.6%) responded that "yes" they generally felt they had enough money to manage daily expenses and to meet basic needs. Two out of three (65.5%) felt that they would be able to manage the moderate demand (\$500-\$1000) of an unexpected crisis. These factors were considered an input to the financial management system.

Contingency plans, spousal communication, and decision making style were considered inherent in the throughput process of the financial management system. Less than 5% of those respondents with identified financial goals indicated that they would ignore the goals should expected income prove inadequate. The majority of the respondents (50.1%) had identified specific financial goals as well as contingency plans should their income not allow them to meet their specific financial goals.

Results also suggested that the majority of the respondents discussed financial matters with their spouse and shared the financial decision making with the spouse. Exclusion of the non-respondents and unmarried individuals yielded a sample of 350. Of these, 53.7% reported that they often discussed financial matters with their spouses. Of the approximately three-quarters of the total sample (75.1%, N=346) for whom the question was applicable, 72.8% reported that "both spouses jointly make most financial decisions."

Management theory suggests that these input and throughput behaviors are representative of some of the principles which would underly the development and implementation of a comprehensive financial plan. Results of this research suggest that the majority of the respondents were demonstrating behaviors congruent with the

critical financial management competencies. However, this behavior did not afford them financial security as most had financial worries.

The great majority of the respondents (85.6%) expressed some degree of satisfaction with present standard of living, yet over three-quarters (76.6%) expressed some level of worry about the amount of money they had available. Two-thirds of the group (67.5%) worried about being overextended or using too much credit. These factors were considered as measures of output of the household financial management system.

These research findings suggest several implications for theory development, research, and teaching:

- Efforts should continue to merge the theoretical orientations of resource management theory and financial management behavior. Some studies [4, 5] have successfully utilized such a perspective and contributed to the body of knowledge.
- Research on financial management behavior should continue as a documentation of actual behavior as well as an exploration of the application of sound management principles. Such a dual perspective would strengthen research in both fields and contribute to a more comprehensive theoretical framework.
- Individuals and families, even those with relatively high incomes and levels of education as demonstrated in this research, continue to need financial management education which will promote consumer sovereignty.

Analysis of the relationships among the variables considered in this research is continuing. Data analysis is presently underway involving these variables as well as other variables measuring stress and associated coping mechanisms.

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## THE INCIDENCE, CHARACTERISTICS AND TYPES OF HOME-BASED EMPLOYMENT

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### INTRODUCTION AND PURPOSE

Technological changes are continually impacting the lives of consumers, both in the marketplace and the workplace. Technology, such as computers, has allowed expansion, efficiency and speed in marketplace transactions. Technology has also affected the workplace. For example telecommuting, working at home using the computer, is reportedly on the rise. The location of one's employment may be moved into the home for other reasons relating to economic factors and family responsibilities. The Department of Labor has only recently counted the extent of home-based work, and little is known about this type of employment. The purpose of this research analysis was to investigate further the incidence and types of home-based employment.

### METHODOLOGY AND DATA

The sample utilized in these analyses was a subgroup of employed (or looking for work) men and women drawn from the 1984 Panel Study of Income Dynamics. Descriptive statistics, including percentages and means, were used to examine the numbers and selected socioeconomic characteristics of the individuals involved in home-based work. Home-based work was defined to be those employment situations in which the worker did not travel to his or her place of employment or the amount of travel varied. Occupational and industry groups were also examined in detail. The data were weighted to represent the national population.

### FINDINGS

The total number of employed (or looking for work) individuals from the 1984 sample equaled

7,220 cases. Approximately 6.1% (weighted) of these workers located their employment in the home. This percentage is comparable to a recent survey conducted by the Department of Labor. With the exception of farmers, the occupational groups most frequently involved in a home-based workplace were: managers and administrators; service workers; and professional and technical workers. Specific occupational classifications which consisted of the largest numbers of home-based workers were varied and included many traditional occupations or jobs such as accountants, clergymen, lawyers, psychologists, editors and reporters. Counts by industry showed that home-based workers were most often classified in the following industries: agriculture and related industries; wholesale and retail trade; and professional and public administration.

An analyses of selected socioeconomic characteristics showed that significantly more men than women were involved in home-based work as defined by this study. Minorities were under-represented in the group of home-based workers. Home-based workers were more likely to be young, between 25 to 44 years of age and members of small households with no young children. The educational level of most home-based workers was the completion of high school. Home-based workers were more likely to work a full-time equivalent of 35 hours or more per week, and their mean labor income was \$12,142 in 1983 dollars. Home-based workers who were non-farm were most likely to live in communities of 50,000 population or less, and were fairly equally distributed among the regions of the country.

This preliminary and descriptive analysis of home-based workers demonstrates the contributions made by these workers to the overall numbers in the labor force. Further study is needed to analyze additional factors which are associated with this type of work effort.

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SURVEY AND STATISTICS MICROCOMPUTER SOFTWARE FOR  
CONSUMER AFFAIRS/EDUCATION TEACHING AND RESEARCH

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ABSTRACT

Survey data and statistical analysis techniques are vital aspects of many phases of teaching and research in the areas of consumer affairs and consumer education. With hundreds of micro-computer software packages available in these areas, the tasks of identifying, evaluating, and implementing appropriate ones can be overwhelming. As with other instructional aids, a systematic selection approach for survey research and statistics software is needed.

RESEARCH OBJECTIVES

The goals of this study were to: (1) identify and obtain information regarding microcomputer survey programs and statistical analysis software; (2) develop a framework for the evaluation of survey research and statistics software; (3) evaluate selected microcomputer software for appropriateness in teaching and research situations; and (4) recommend implementation techniques and instructional strategies for selected survey research and statistics software.

RESEARCH PROCEDURES

The methodology used in this study consisted of the following steps: (1) identification of survey research and statistical analysis software; (2) requests for information and sample or demonstration disks for software identified as having potential use in consumer affairs and consumer education teaching and research; (3) creation of a criteria for the evaluation of survey research and statistics software; and (4) development of suggestions to implement survey research and statistics programs in teaching situations.

SOURCES OF SOFTWARE INFORMATION

The information sources used to identify the microcomputer programs for this study involved the following:

- the "Software for Marketing and Marketing Research" directories in the Marketing News (see March 27, 1987 issue, pages 13-32)
- advertisements and "marketplace" listing in computer periodicals such as PC and PC World
- the book review section of the Journal of Marketing Research
- promotional brochures, catalogs, conference exhibits, and journal advertisements of text-book and software publishers.

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EVALUATION FRAMEWORK

The factors that are recommended for consideration when assessing the suitability of software include:

- equipment type and requirements
- availability of a sample or demonstration disk
- ease of operation (data entry; menu vs. command)
- adaptability to teaching and research situations
- handling of survey data and statistical needs
- usefulness of documentation and manuals
- printing capabilities
- cost (site licensing vs. individual disk price)

FINDINGS

The software identified in this study were grouped into four categories:

1. Survey research programs are designed to define variables, enter data, and tabulate results. Each allows the creation of frequency distributions and most also develop cross-tabulations. Many of the programs have statistical analysis capabilities.
2. Instructional software for statistics have the main purpose of teaching students to use descriptive and inferential statistical analysis techniques. These packages have a detailed student manual with sample problems or a separate data disk.
3. Low-cost statistics programs are inexpensive packages available to process data for class assignments and research projects.
4. Advanced statistical analysis packages are capable of both basic and multivariate analysis. These programs include PC-versions of main-frame software.

(NOTE: A detailed list of available software may be obtained from the author, Dept. of Economics and Business, Lake Forest College, Lake Forest, IL 60045.)

CLASSROOM APPLICATIONS

Survey research and statistics software can be used in the instructional process in the following manners:

- creation of survey instruments, data collection, and tabulating descriptive statistics
- development of a basic awareness and use of statistical analysis techniques
- analysis of student-collected or previously published data
- implementation of a research project from problem identification to data analysis.

SELECTED REFERENCE

Shiffler, Ronald E. "A Personal Agenda for Evaluating Software for Business Statistics Courses." Journal of Education for Business, February, 1986, pp. 197-201.

## TIME USE OF SOMALI WOMEN FARMERS

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Somalia is one of the poorest countries in the world. Its two major industries, agriculture and livestock production, are primarily for subsistence. This study took place in Somalia's major dryland farming area, the Bay Region. In the Bay Region agricultural technology is limited to hoes and knives and is thus labor intensive. Empirical research on Somali farmers is scarce but indicates that women contribute significantly to agricultural production although the extent of women's participation and the constraints to it are unknown [1]. The purpose of this paper is to describe contributions of women of the Bay Region to agriculture and to explore the determinants of their time use.

### METHOD

The data were collected in eleven villages surrounding Baidoa, Somalia, the largest city in the Bay Region, during the summer of 1986 in conjunction with the Bay Region Agricultural Development Project.<sup>2</sup> Sample members were selected both purposively and conveniently. To maximize the research effort the time use study built on work done by Massey et al. [1] by using women from their survey as sample members. When a target member was unavailable another household was selected. The sample contained 23 households composed of 29 women and 21 men.

The data were collected during the country's longer rainy and primary agricultural season. Weeding and harvesting activities were encompassed. Time use was observed directly for 2 days per case. Data were analyzed with descriptive statistics and multiple analysis of variance.

### RESULTS

Seventy-two percent of the women were married; 28 percent were heads of households. Thirteen percent of the women had attended village Koranic schools for at least some time but none was literate. The level of women's education compared unfavorably with the men's as 84 percent of the men had attended Koranic school and more than 20 percent had attended a country-wide 6-week literacy course.

Allocation of the women's time is reported in Table 1. Most of the directly productive part

of the day was spent in household production while half as much time was allotted to agricultural work. Manufacturing activities consumed a half hour per day. Sleeping, eating and other personal maintenance activities as well as recreation consumed the rest of the day. In sum, the women spent approximately 11 hours per day in all types of directly productive activities.

Most of the time in agricultural production was expended on major crop production. Only two households had gardens and these were very small. The other major agricultural task was animal husbandry, primarily milking.

Table 1. Time Allocation of Women Farmers

Activity	Mean	Minutes per Day Standard Deviation
Agricultural work	205.23	248.05
Household work	416.05	149.38
Home manufacturing	33.90	92.77
Recreation	98.57	71.27
Personal Maintenance	677.79	140.49

Food preparation consumed more time than any other home production activity, approximately 4 hours per day. Child care was the second largest use of time. About 1 hour per day was allocated to child care, primarily physical care.

The results of the multivariate analysis of variance indicate that married women spent less time in agricultural production than unmarried women. Good health increased time in farming as did the presence of a well in the village.

The results of the multivariate analysis of variance indicate that married women spent less time in agricultural production than unmarried women. Good health increased time in farming as did the presence of a well in the village. Time in agricultural production decreased as children aged. Contrary to predictions regarding the impact of wealth on the supply of labor, agricultural production increased with number of camels owned. This may mean that a source of wealth to husbands isn't necessarily one for wives. Women have little access to the cash generated from sales of animals.

Time in household production was greater for married than unmarried women and increased if either spouse reported at least intermittently earning money by having a job or owning a teashop. Unexpectedly, time in household work declined with number of children. Furthermore,

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<sup>2</sup>The project was funded by U.S.A.I.D., the consortium for International Development and Women in Development



time men spent in farming was inversely related to time women used for household work.

In conclusion, these data indicate that women make significant contributions to farming in the Bay Region of Somalia. However, much more time is spent in household than agricultural production. Thus improvements in the efficiency of food production and other household production tasks would enable women to spend more time on agricultural work. Improvements in household technology might be as likely as those in agricultural technology to increase women's time and efficiency in agricultural production.

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