ELECTRONIC FUNDS TRANSFER SYSTEMS: AN EMPIRICAL ANALYSIS OF USER INTERESTS

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Abstract

Electronic Funds Transferring Systems have imposed a new dimension on bank marketing decision makers. An industry-wide trend toward greater automation in bank operating systems has not been as favorably received by consumers as first anticipated. Thus, as a first step toward improved decision making in the banking industry, the bank marketing function must be considered. A large innovative midwestern consumer bank became the first in a 70 mile radius to implement a 24-Hour EFTS service. A total of 1728 users of this EFTS service provided the basis for this research -- to further explore consumer transaction interests and values attached to select service attributes.

Introduction

One of the most recent adaptations of data processing and telecommunication technology in the banking industry has been the development of electronic funds transferring systems (EFTS's) [1,3,6,7,10]. In response to increased competition and a trend toward greater automation in operating systems, the banking industry has moved aggressively toward adopting EFTS facilities which permit their customers to conduct a variety of transactions (i.e., checking and savings withdrawals/deposits/transfers), without formal contact with bank personnel [1,6,7,10]. Such EFTS facilities are man/machine operations which permit bank customers to conduct these transactions with the bank 24 hours/day, 7 days/week. To date, however, consumer response to these types of EFTS facilities has generally been inadequate to cover the substantial investments required to purchase and operate them [1].

Thus, to the extent that many

consumer banks are presently committed to these types of EFTS facilities (i.e., either presently in operation or on order from manufacturers), considerable attention is currently being directed at methods of improving consumer response [1,6,10]. For example, Pool [7] attempts to identify a profile of characteristics normally associated with early-customers of an EFTS facility in order to facilitate the development of bank promotion strategies. However, to the extent that this and other such profiles have been directed at differentiating innovative users from all others (i.e., later adopters, non-users, etc.), the variables investigated as potential market segmentation criteria have generally been less than practical. For instance, Pool [7] portrayed consumer transaction interest patterns through nominally-scaled descriptions which were convenient for a specific form of analysis (i.e., multiple discriminant analysis). Additionally, such interest patterns only represented a small portion of the user profile. Other

variables included were: television, radio, theater, and general entertainment preferences, several demographics, and an evaluation of past promotional methods. Another profile [1] simply acknowledged that regular EFTS users were probably characteristically younger, more affluent, and white-collar individuals.

The bank marketing practitioner has generally been given little practical information in terms of the transaction interests of EFTS customers. Furthermore, the often-promoted attributes of new EFTS systems need to be evaluated with respect to the wants of the target market of EFTS users irrespective of their positions in the adopter distribution (i.e., innovators, early-adopters, etc.).

Thus, the purpose of this research is to further investigate consumer interests in EFTS's. Where several types of transactions are available through an EFTS facility, consumer transaction interests and use patterns could serve as the basis for improvements in both marketing strategies and future EFTS operations. For example, if consumers tend to view an EFTS facility primarily as a check-cashing service, then promotion strategies should be designed with this in mind. Similarly, if select attributes of the EFTS are more important to the majority of consumers (e.g. if extended banking hours are more important than convenience-of-location), they should be emphasized in promotion campaigns. Beyond these basic promotional implications, this type of practical information could also provide valuable insights to those banks which are considering adopting an EFTS facility.

Therefore, the major questions to be investigated in this research are: (1) What interests do users of EFTS facilities have in terms of the types of transactions available, and (2) What attributes of the service are the most important to users of an EFTS?

Method

A total of 1728 EFTS users were identified from the records of a consumer bank located in a midwestern city with a population of 150,000. Subsequently, a mail questionnaire was forwarded to the identified respondents. There were 465 returned questionnaires that qualified for processing.

The questionnaire included a return-addressed, stamped envelope with a cover letter endorsed by both the vice-president of the participating bank and the researchers. Five types of questions were involved, each corresponding to a particular aspect of the research; demographics, venturesomeness, convenience versus service orientation of the consumer, transaction interests, and the value of service-attributes. The demographic variables included the user's age, years of education, and income. Each variable was scored categorically.

To obtain measures of user interests in each of the eight basic transactions available (i.e., checking account deposits and withdrawals, savings account deposits and withdrawals, funds transfers, credit card cash advances, utility payments, loan payments), each transaction was listed along with a 5-point scale ranging from very high interest to no interest. Similarly, to obtain value measures of service-attributes, each of the six selected service-attributes was listed along with a 5-point scale ranging from very high value to very low value. The six attributes were originally selected by bank personnel as representing those most frequently considered by users and included: extended banking hours, access to cash, convenience of location, ease of operation, machine availability, and faster service.

Individual venturesomeness scores were obtained through an author-designed instrument consisting of seven semantic differential scales related to

willingness to purchase new products. A sample scale follows: In regard to the purchase of new products and services which come out on the market, I am:

An Innovator 1 2 3 4 5 6 7 8 A Laggard

Finally, an individual's orientation toward bank service facilities in terms of seeking specific services versus an overall convenience factor attached to the services themselves, was obtained through one scale: To me, convenience is more important than services in picking a bank:

AGREE [] [] [] [] [] [] DISAGREE
 Very On the A A On the Very
 Much Whole Little Little Whole Much

Table 1

Demographic Variables

Variable	Category	Percent
Age	Less than 20	17.0%
	20--less than 25	36.3%
	25-- " " 30	18.5%
	30-- " " 35	5.8%
	35-- " " 40	4.3%
	40-- " " 45	2.6%
	45-- " " 50	6.5%
	50-- " " 55	2.6%
	55-- " " 60	3.4%
	60 and Over	3.0%
Years of Education	Grammar School or less (Grades 1-8)	2.4%
	High School or less (Grades 9-12)	28.6%
	College or less (Grades 13-16)	46.2%
	Graduate (Grades 17-18)	12.3%
	Professional (Grades over 18)	10.5%
Income (Combined family 1974, EBT)	Less than \$5,000	40.0%
	\$5,000--less than \$8,000	13.8%
	\$8,000-- " " \$10,000	9.2%
	\$10,000-- " " \$12,000	5.8%
	\$12,000-- " " \$15,000	4.5%
	\$15,000-- " " \$20,000	14.0%
	\$20,000-- " " \$25,000	6.0%
	\$25,000-- " " \$30,000	3.2%
	Greater than \$30,000	3.4%

Results

As a descriptive investigation, the results have been compiled in tabular form. In terms of demographics (see Table 1), a substantial percentage of EFTS users were under 25 years old (53.3%). In comparison, only 28.2% of the users were over 30 years old. In addition, 69% of the respondents had at least one full year of college or more. Thus, in terms of the traditionally held profiles of EFTS users, it would appear that EFTS users are indeed younger and more educated. However, the fact that 63% of the respondents had a combined annual family income (1974) of less than \$10,000 suggests that EFTS users, even during the first seven months of its availability, are not relatively more affluent.

The examination of individual orientations toward banking services (convenience versus service) and venturesomeness scores did not result in the identification of any significant trends. It is interesting to note, however, that EFTS users were approximately equally divided in their orientations (45.6% convenience oriented versus 54.4% service oriented). EFTS users were apparently "middle-of-the-adopter distribution" in terms of their self-perceptions of venturesomeness (79.1% of all users scored between 28 and 35 on the scale, the equivalent of neutral scores across all seven items).¹ Few considered themselves as either innovators or laggards.

In Table 2, eight types of transactions available through the EFTS have been rank ordered in terms of the percentage of respondents indicating no interest at all. Practically 40% indicated that the ability to transfer funds between accounts and obtaining credit card cash advances were totally unimportant. Similarly, almost half of all respondents indicated no interest in utilizing the EFTS to make payments for utility bills and loans (46.2% and 47.3% respectively).

Conversely, 82.4% and 64.4% of the respondents indicated greater than average interest in both checking transactions (i.e., withdrawals and deposits, respectively). These figures compare to only 37.2% showing greater than average interest for savings deposits which ranked third in Table 2.

Table 3 presents each of the six service attributes (i.e. those identified by representatives of the participating bank), in their rank order of importance. All six were viewed by the consumers as being quite important, in support of the banks' initial contention. It is interesting to note, however, that the two most "valued" service attributes were (1) extended banking hours, and (2) access to cash.

Discussion and Implication

The primary purpose of this research was to further investigate consumer interests in EFTS facilities and to expand on the current understanding of an EFTS user profile. Toward these ends, it was apparent that all users of the EFTS under investigation had considerable interest in only four of the eight transactions available. However, it was also evident that checking transactions were the most important services afforded by the EFTS. Several plausible explanations for such a response pattern can be hypothesized. First, given the current state of automation in banking services, respondent inexperience with the capabilities of EFTS facilities could certainly affect the extent to which the respondents were interested in such transactions as loan and utility payments, funds transfers, and credit card cash advances.

Second, as the costs of maintaining checking accounts continue to decrease (i.e., free checking, minimum balance accounts, etc.), the usage rate of checking services will continue to burgeon. As a result, consumers will be seeking more convenient check cashing services. Given the capabilities of

Table 2
Rank Ordered
Transaction Interest Response Patterns

Order	Transaction Interest Variables	% of Population Indicating No Interest at All
1	Checking Withdrawals	1.9%
2	Checking Deposits	5.6%
3	Savings Deposits	18.7%
4	Savings Withdrawals	20.6%
5	Funds Transfers	39.1%
6	Credit Card Cash Advances	39.6%
7	Utility Payments	46.2%
8	Loan Payments	47.3%

Table 3
Rank Ordered
Value of Service Attributes

Order	Service Attribute	% of Population Indicating Average Value
1	Extended Bankings Hours	97.2%
2	Access to Cash	95.6%
3	Convenience of Location	88.5%
4	Ease of Operation	83.8%
5	Machine Availability	80.8%
6	Faster Service	80.8%

24-hour EFTS's (i.e., where deposits as well as withdrawals can be negotiated), consumer interest should be high.

Additionally, the relatively higher interest expressed toward checking transactions might also be a reflection of the populations' inability to conceive of a completely plastic, highly automated financial system [3]. Stated alternatively, the concept of a "paperless" financial system is only in the infant stage in terms of consumers' perceptions. As a result, most consumers are simply not attuned with all of the benefits of an EFTS. This might explain, for example, why credit card cash advances ranked sixth.

In terms of the values of service attributes it was apparent that all were quite important. A previous study has suggested that only "reduced cost" might be seen by the consumer as an important EFTS attribute [3]. Quite clearly, in light of the data presented in this research, this is not the case. However, another approach for future research might be to consider asking EFTS users which attributes are most important to them without the assistance of a fixed-alternative response question.

The two "most valued" service attributes correspond directly to the earlier established interest pattern in checking transactions. That is, extended banking hours and access to cash can be linked directly to interest in checking transactions. In this same vein, however, it is not clear why machine availability ranked fifth.

Generally, this study indicated that among users of one type of EFTS, a large percentage of the respondents expressed higher than average interest in utilizing an EFTS for certain types of transactions, the majority of respondents favored checking-related transactions. It is clear, however, that thus, continued research into consumer reactions to bank service automation should

be encouraged.

With respect to future research, it is important to recognize one distinction between the concept of an EFTS user profile and the adopter profile typically sought by traditional diffusion studies (e.g. [4,5]). Unlike the traditional adopter profile based on specific innovations, the EFTS service typically represents a non-purchased service. Thus, the risks attached to EFTS's are likely to be totally different from those typically attached to either purchased-service and product innovations, and therefore user profiles may involve vastly different characteristics from those typically employed in innovative diffusion research.

Finally, (1) more research is necessary to determine which service attributes consumers desire from an EFTS, and (2) it is possible that when automatic credit becomes pervasive throughout all business establishments, consumer interests and values will change significantly. It appears therefore, that continued research in the directions suggested by this study will become increasingly important to the bank practitioner.

Footnote

1 A coefficient alpha was computed in an effort to assess the internal consistency of the author-designed venturesomeness instrument ($\alpha = .80$). Internal consistency is a necessary requisite for validity.

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