Workshop

on

Digital Platform for Financial Inclusion and Rural Women Empowerment

Under the Scheme

Organized by

Rural Development Centre
IIT Kharagpur

[During : 13th August-15th August; Location: SHGs clusters in Siliguri and Darjeeling Districts]

Sponsored By

Introduction

The proposed workshop will be providing a stage to engage multi stakeholders i. e. bank officials, SHG leaders, SHG members and SHG supporting institutions to bring their perspective in designing and formulation of proposed digital platform. This workshop will lead the groundwork for collection of baseline data and confining the insights of rural women and bank officials of Darjeeling district towards proposed platform.

Target Audience (Approx 50)

- SHG leaders
- SHG members
- SHG promoting Institutions
- Bank Officials

The aim of the workshop is to engage the various stakeholders (target audience), have prolific discussion to generate better perspective towards the development of proposed digital platform. After the workshop, we will be collecting the baseline data for evaluating the Willingness to Pay (WTP) and Technology Acceptance Model (TAM) as per the following Methodology:

Methodology

Contingent Valuation Method

Contingent valuation measures the compensating or equivalent variation for the good or commodity in question. Compensating variation is the appropriate measure when the person must purchase the good, such as usage of a mobile app. Equivalent variation is appropriate if the person faces a potential loss of the good, as he would if he has to bear the transaction costs himself. Both compensating and equivalent variation can be elicited by asking a person to report a willingness to pay the amount. For instance, the person may be asked to report his WTP to obtain the good or to avoid the loss of the good. Formally, WTP is defined as the amount that must be taken away from the person's income while keeping his utility constant:

$$V(y - WTP, p, q_1; Z) = V(y, p, q_0; Z)$$

where *V* denotes the indirect utility function, *y* is income, *p* is a vector of prices faced by the individual, and q_0 and q_1 are the alternative levels of the goods or quality indexes (with $q_1 > q_0$, indicating that q_1 refers to improved environmental quality).

Willingness to accept for good is defined as the amount of money that must be given to an individual experiencing a deterioration in environmental quality to keep his utility constant:

$$V(y + WTA, p, q_0; Z) = V(y, p, q_1; Z)$$

In equations (1) and (2), the utility is allowed to depend on a vector of individual characteristics influencing the trade-off that the individual is prepared to make between income and environmental quality. An essential consequence of equations (1) and (2) is that WTP or WTA should, therefore, depend on (i) the initial and final level of the good in question (q_0 and q_1); (ii) respondent income; (iii) all prices faced by the respondent, including those of substitute goods or activities; and (iv) other respondent characteristics. Internal validity of the WTP responses can be checked by regressing WTP on variables (i)-(iv), and showing that WTP correlates in predictable ways with socio-economic variables.

In early applications of the CVM, respondents were often asked open-ended questions about their WTP. An open-ended question might be worded as follows: "What is the most you would be willing to pay for?". On the other hand, the iterative bidding approach (Randall et al., 1974) starts by querying individuals at some initial dollar value and keeps raising (or lowering) the value until the respondent declines (accepts) to pay. This final dollar amount is interpreted as the respondent's WTP. An alternative approach is to list several possible WTP values on a card and to ask the respondent to pick the amount on the card that best represents his willingness to pay. The amount chosen by the respondent can be interpreted as the respondent's WTP. A more accurate interpretation, formalised in a study of valuation of non-marketable products (Cameron & Huppert, 1989), is that the chosen amount is a lower bound for the respondent's WTP, the upper bound being the next highest amount on the card. Although under this interpretation WTP is not directly observed, statistical models can be fit that allows one to obtain the parameters of the distribution of WTP, and to make a prediction about a respondent's expected WTP amount.

Technology Acceptance Model

Technology Acceptance Model (TAM) has been employed in several studies to explain an individual's acceptance of mobile banking (AlSoufi and Ali 2014; Gu, Lee, and Suh 2009; Mathew, Sulphey, and Prabhakaran 2014; Zhou 2012). However, in order to understand the users' behavioural intention to use mobile banking, TAM has to be modified slightly. For instance, Luarn and Lin (2005) added three factors to the TAM model and their findings indicated that perceived self-efficacy, financial cost, credibility, ease-of-use, and usefulness had positive effects on the behavioural intention to use mobile banking. Another study also extended the TAM to include three more constructs, perceived credibility, amount of information, and normative pressure and the results revealed that perceived ease-of-use significantly influenced perceived usefulness and perceived credibility (Amin et al. 2008).
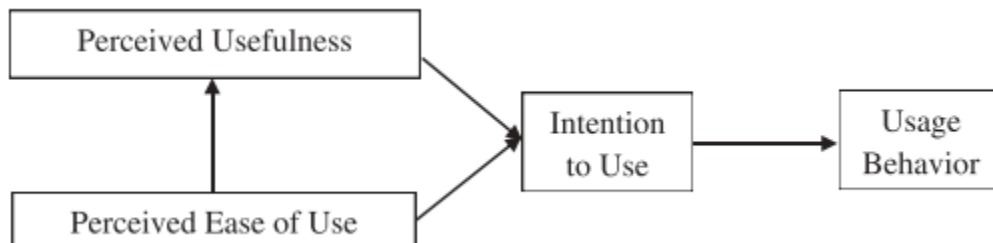
Fig. 2. Technology acceptance model (TAM) (Adapted from Davis, Bagozzi, and Warshaw 1989)

Data Collection and Area of Study

The baseline survey will cover elementary information like economic profile and demographic profile, information regarding transaction cost of banks, along with training needs assessment for SHGs. It would also have a section for all the stakeholders to capture the perceived utility, need of the proposed mobile app and their WTP for the same. Provided below is a list of tentative indicators based on extensive literature review for various stakeholders involved in the research.

Major Stakeholders: SHG LEADERS/Members, Bank, SHG promoting institutions

1. Information from SHG Members

    a. Economic Profile

        - Income Proxy

        - Food Expenditure

        - Mobile Expenditure

        - Mobile Internet Usage

    b. Demographic Profile

        - Household Size

        - Age

        - Caste

        - Educational Level

        - Occupation

        - Location

2. Information from the Bank

        - Transaction Costs: Loan, Savings

        - Link with mobile banking

        - Willingness to give incentive to SHGs

3. Information from the DRDA/ BDO

        - Training conducted for SHGs

        - Training needs assessment

4. Information regarding User Behaviour and Mobile App

        - Perceived utility for App

        - Perceived ease-of-use

- Perceived security/ risk
- Behavioural Determinants:
    - Effort Expectancy
    - Facilitating Conditions
    - Performance Expectancy
    - Price Value
    - Hedonic Motivation
    - Social Influence
    - Habits
- WTP for the Mobile App

The study will be conducted in villages Siliguri and Darjeeling Districts since there is a concentration of SHGs in these areas. Data will be collected through Key Informant In-Depth Interviews (KII) and Focus Group Discussions (FGDs). Some guidelines for selection of SHGs include the following:

- The SHG should be in existence for at least six months
- The group should comprise of 10-20 women
- SHG must have a minimum Savings/ Corpus of ₹1,000
- Acceptable level of financial and administrative discipline in running of the SHG