

1 **Attitude and Perception of farmers on Mobile based Agriculture: Reuters' Market Light**
2 **(RML)**

3
4 **Abstract:**

5 Farmers need dynamic information relating to agriculture and rural development. Therefore, to
6 satisfy the need of information and knowledge, Reuters Market Light (RML) offers highly
7 customized and localized agricultural related information service. RML provides information
8 services via mobile phone-based Short Message Service (SMS) primarily aimed at farmers. The
9 study was carried out in the Erode district of Tamil Nadu state. The results revealed that majority
10 of the respondents had a strong positive attitude towards market and the respondents had a high
11 level positive perception towards mobile phone with regard to farm information and technology
12 transfer.

13 **Key Words:** Reuters Market Light, Short Message Service, Gratification, Constraints, Mobile
14 telephone, Pallavan Grama Bank.

15 **Introduction:**

16 The new paradigm of agricultural development in India necessitates incorporation of
17 Information Technology for driving over all societal transformation. Information technology
18 revives the social organizations and productive activity of agriculture, which if nurtured
19 effectively, could become transformation factor. Agricultural extension, in the current scenario
20 of rapidly changing world, is recognized as an essential mechanism for delivering information
21 and knowledge packages as input to modern farming, harnessing ICTs in agricultural
22 development is inevitable. (Chadha, 2009)

23 Hence, a venture promoted and supported by Thomson Reuters, Reuters Market Light
24 (RML) offers highly customized and localized agricultural and related information service. Using a

25 subscription model, RML provides information services via mobile phone-based Short Message
26 Service (SMS) primarily aimed at farmers. RML SMS covered localized weather forecasts, crop
27 advisory, proximate market data and crop prices; in addition to relevant policy and national and
28 international news. With such information, a farmer subscribing to the RML service is equipped to
29 overcome the information asymmetry that impedes agricultural communities' growth and earnings,
30 especially in the context of falling yields. Equipped with information, farmers can thus make
31 informed decisions about their agricultural practices and sales and will be able to create wealth
32 through a rise in agricultural productivity and income while waste and market inefficiencies are
33 likely to be minimized. With the hope to spark the ideas to mobilize the convergence of ICT in
34 agriculture, the present research has been carried out to investigate various researchable issues to
35 delineate the pre-requisites of a sound strategy of ICTs in agriculture. Since RML operates in the
36 study area for the past three years it is important to study the different perspectives like Attitude
37 and Perception, by the registered RML users in utilizing the market price information provided
38 through SMS. So as to know the give some possible suggestions to improve the services provided by
39 RML to enable farmer as the strongest player in the market the present study entitled "**Attitude and**
40 **Perception of farmers on Mobile based Agriculture: Reuters Market Light (RML)**" was
41 designed and executed.

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43

44 **Research Methodology**

45 The study has been carried out in the Erode district of Tamil Nadu state. Among 32
46 districts of Tamil Nadu, Erode district was identified as the study area of this district which
47 constituted a major group of beneficiaries of Reuters Market Light (RML) through mobile

48 telephones. In Erode District of Tamil Nadu Reuters Market Light (RML) utilizes Pallavan
 49 Grama Bank (Agricultural Rural Bank which is sponsored by the Indian Bank) to distribute the
 50 messages. RML gets the farmers' data base from the Pallavan Grama Bank and in terms it sends
 51 the messages to farmers'. There are fourteen Pallavan Grama Banks functioning in Erode
 52 District. All the fourteen banks were selected for the study, from these fourteen banks 180
 53 respondents were drawn by using the Stratified Random Sampling with Proportional allocation
 54 method. Then Simple Random Sampling without replacement procedure was adopted, with the
 55 help of Random number table the respondents who availed the Reuters Market Light (RML)
 56 service through the mobile phone Short Message Service (SMS) were selected for the study. The
 57 collected data was analyzed with appropriate statistical tools (SPSS) and techniques. The salient
 58 findings of the study are given below.

Comment [PK(1): To make sure each **sample** unit of the population has equal chance being selected

59 **Result and Discussion**

60 **Attitude towards Market**

61 The attitude of the respondents towards market was analyzed by using six statements
 62 about market. Likert scale was used to assess their attitude towards market. The attitude
 63 statements with their obtained mean score are tabulated in Table 1.

Comment [PK(2): Likert type scale with how points 5 point scale or 7 pint scale?

66 **Table 1: Distribution of respondents based on their attitude towards market**

(n=180)

S.No.	Statement	Weighted Mean score
1.	Selling the produce at market places does not necessarily mean good price.	4.23
2.	It is cumbersome to sell the produce at the market.	3.25
3.	Disposing the produce in the village is economical than	3.6

	selling it in the market.	
4.	It is wastage of time to sell the produce in market.	3.8
5.	Good price for the produce is obtained only when marketed outside village.	3.25
6.	Only middlemen will be benefitted if the produce is sold at the market.	4.80

68

69 Table 1 reveals that the mean score obtained by the respondents for the given statements
70 on attitude towards market namely:

71 (i) *Selling the produce at market places does not necessarily mean good price* being a negative
72 statement it obtained a mean score of 4.23 which inferred that the respondents strongly disagreed
73 to this statement, because the respondents expressed that they would sell the produce at markets
74 only when they felt that the offered prices were good and also they added that market was the
75 only place where they could find various alternatives to sell the produce for a good price.

76 (ii) *It is cumbersome to sell the produce at market* obtained a mean score of 3.25, as it is a
77 negative statement it revealed that farmers disagreed with this statement because they felt that a
78 responsible farmer should not consider marketing his produce in the market as a cumbersome
79 process because the ultimate aim of producing a commodity is to achieve some profit out of it
80 and it could be obtained only when the farmer involved marketing of his produce at the market.

81 (iii) *Disposing a produce in the village is more economical than selling it in the market* secured
82 a mean score of 3.6 as a negative statement revealing that respondents disagreed with this
83 statement.

84 (iv) *It is wastage of time to sell the produce in market* was another negative statement by which
85 the farmers disagreed with a mean score of 3.8. For both the statements they felt that selling the
86 produce in the market is economical. Farmers felt that if the produce was disposed at the village
87 there might be a chance of losing the existing demand and competition for their produce which in

88 turn provided better profit to the farmers when sold in the market and hence farmers expressed
89 that disposing a produce in the village was not economical.

90 (v) *Good price for a produce is obtained only when marketed outside the village* got a score of
91 3.25 and the respondents agreed to this positive statement because they felt that market was the
92 only place with a structure that fetched maximum price for a good quality produce because of its
93 consumer preference.

94 (vi) The last statement, *only middlemen will be benefitted if the produce is sold at the market* is
95 a positive statement which was accepted by the respondents strongly, this statement secured a
96 score of 4.80. The respondents expressed that the only major constraint experienced by them was
97 the exploitation by the middlemen. Respondents felt that middle men were the strongest link in
98 the process of marketing because of their well established linkage with traders in the market.
99 They also added that no farmer can enter a market and have a direct transaction with the traders
100 without the intervention of middlemen. They strongly stated that middlemen only reaped the
101 maximum benefit out of a produce which was produced by farmers and sold by traders. They
102 also urged the researchers and policy makers to find ways to restrain the middlemen from the
103 marketing chain so that the ultimate producer could be benefitted.

104 From the above discussion it is inferred clearly that the respondents selected for this
105 study had a positive and strong attitude towards market. In spite of various constraints faced by
106 them in the process of marketing like, packaging, transportation, storage, exploitation by
107 middlemen, *etc.*, and the farmers still preferred to go and sell their produce in the market because
108 of the following reasons. Bargaining and negotiations could be done only when the produce
109 reached the market, since the produce produced by precision farmers were of superior quality;

110 the advantage of competition could be exploited by farmers provided if there is a demand for his
111 produce in the market.

112 **Perception towards mobile phone in farming**

113 Individual's perception is a result of interplays between past experience, including one's
114 culture and the interpretation of the perceived. If the percept does not have support in any of
115 these perceptual bases it is unlikely to rise above perceptual threshold.

116 Farmer's perception towards using mobile phones in learning farm related technologies,
117 receiving all agriculture related information was an important factor to be studied in this research
118 because it intended to study the information utilization behaviours of farmers receiving the
119 Reuters Market Light (RML) information through mobile telephone. The relevant data required
120 to study this variable were collected and the results were tabulated in Table 2.

121 **Table 2: Distribution of respondents based on their perception towards mobile phone**
122 **in farming** (n=180)

S.No.	Item	Mean Score
1.	Easy to learn	1.68
2.	Too expensive	2.608
3.	Absolutely essential	1.25
4.	Swift rapid information transfer	1.65
5.	Age is no bar	1.88
6.	Exclusive for literate groups	3.78
7.	Plethora of information transfer	1.25
8.	Used in contingencies	1.25
9.	Used in emergencies	1.69
10.	Portable	1.76

123 Table 2 reveals that the respondents obtained a mean score of 1.25 for the positive
124 statements like mobile phone technologies are easy to learn, age is no bar for utilizing mobile phone
125 technologies, used in contingencies, used in emergencies and are portable inferring that farmers have
126 a positive (high level) and strong perception towards these statements followed by statements like
127 mobile is absolutely an essential tool and plethora of information transfer can be done through

128 mobile telephones which obtained a mean score of 1.25 which can be interpreted that farmers are in
129 an undecided state with regard to these statements. Farmers have a negative and low perception
130 towards statements like mobile phones are too expensive (2.068), rapid transfer of information is
131 possible through mobile phones (1.65) and Mobile phones are exclusively intended for literate
132 groups only (3.78). In general, most of the respondents had a high level of positive perception
133 towards using mobile phone for farm information and technology transfer. It shows that farmers
134 perceive mobile phone as the most essential and potential tool for exchange of information, faster
135 learning tool, modest gadget for easy interpretation of information.

136 **Conclusion**

137 The value of information is universal and paramount. Providing information to those who
138 do not have access to it and who are in critical need is an important service, independent of the
139 specific benefits to farmers. Value additions in the Indian agriculture sector as well as value
140 added services in the mobile phone industry are in urgent need of attention – and both hold
141 promise for improving the situations of farmers, while creating value for several stakeholders
142 including the mobile service companies and content aggregators like RML.

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