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| IFMR RURAL FINANCE |
| Psychometric Test |
|  |
| **IFMR Rural Finance** |
| **11/17/2016** |

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# Stage definition

|  |  |
| --- | --- |
| **Stage** | **Description** |
| Psychometric Test | Loan Officer will launch the test for particular customer |
| Generate Score | After successful completion of test, calculate the score. |

# Stage-role access

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| --- | --- |
| **Stage** | **Applicable Role** |
| Psychometric Test | Loan Officer |

# Psychometric Test-Initiation

## UI specification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field name** | **Section** | **Data Type** | **Attribute** | **Population logic** |
| Select Language | Language | Radio Buttons |  |  |

## Screenshot

|  |  |
| --- | --- |
| * Select Language | * Instruction Page |
|  |  |

## Functional requirements

**Loan Officer** logs in

* Loan Officer will launch the test as a part of Application Stage
* When the test is selected for launch, it will ask for a language (Hindi/English/Marathi/Kannada/Tamil) to be selected
* Once Loan Officer selects a language, Psychometric test goes for build
* After this page, instruction page will be loaded in the selected language

Sample Instruction Page will have following instructions

* There are 45 questions in this test
* Attempt all questions
* Each question will have maximum of five options, choose one right option only
* Be as honest as you can while attempting this test

## Upload

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## Download

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## Reports

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# Psychometric Test

## UI requirements

* For all questions except linked questions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field name** | **Section** | **Data Type** | **Attribute** | **Population logic** |
| Question | Question | Text/Picture | Read | Populate from database |
| a) | Options | Radio Button | Read/Write | Populate option from database |
| b) | Options | Radio Button | Read/Write | Populate option from database |
| c) | Options | Radio Button | Read/Write | Populate option from database |
| d) | Options | Radio Button | Read/Write | Populate option from database |
| e) | Options | Radio Button | Read/Write | Populate option from database |

For Linked Questions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field name** | **Section** | **Data Type** | **Attribute** | **Population logic** |
| Question | Question | Text | Read | Populate from database |
| a) | Options | Radio Button | Read/Write | Populate option from database |
| I | Option-a | Radio Button | Read/Write | Populate option from database |
| II | Option-a | Radio Button | Read/Write | Populate option from database |
| III | Option-a | Radio Button | Read/Write | Populate option from database |
| b) | Options | Radio Button | Read/Write | Populate option from database |
| I | Option-b | Radio Button | Read/Write | Populate option from database |
| II | Option-b | Radio Button | Read/Write | Populate option from database |
| III | Option-b | Radio Button | Read/Write | Populate option from database |

## Screenshots

|  |  |
| --- | --- |
| * Start Test | * Sample Question |
|  |  |

|  |  |
| --- | --- |
| * Sample Linked Question | * When Option A is selected |
|  |  |

|  |  |
| --- | --- |
| * When Option B is selected | * End Test |
|  |  |

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| --- | --- |
| * Final Step |  |
|  |  |

## Functional requirements

1. 45 questions will be displayed as a part of this test
2. Display one question per screen
3. Once option is selected and submitted /next button (or opened next question), freeze the answer
4. There are four types of questions- Normal, paired, linked and pictorial
5. Normal Question will have maximum five option and user should select one of them
6. Paired question will come in pair, if one of them is selected then other one should also be selected. Please note here that sequence is not mandatory here.
7. Linked question will have multiple option and on selecting any option, further options will appear
8. Pictorial question will have five option
9. Prototype of Linked Question

(Question: This is some random question?

1. Use option a
2. Use option b

If user clicks on **option a** then few more option will appear (Please note that in this case user will not be able to select **option b** ever)

The option will look like below after clicking on option a.

Question: This is some random question?

1. Use option a
2. Why option a
3. Why not b
4. Because of c
5. Use option b

Now user **will have to** select any one of I/II/III.

1. The questions are of five category- 1)Integrity 2)Intention to pay 3)Risk Taking 4)Business Acumen 5)Problem Solving
2. Each category will have 9 questions
3. Within each category, there will be 3 questions each of high, medium and low difficulty level
4. Each question will have score in between 0 to 1. Scores can be 0, 0.25, 0.5, 0.75, 1.
5. If option selected for 15 consecutive questions are same then indicate pattern error
6. AT LEAST 3 paired question should be included in test
7. AT LEAST 2 linked question should be included in test
8. AT LEAST 5 pictorial question should be included in test
9. Jumble all the questions and options each time
10. All the options for particular question are assigned with score. Based on this, score will be calculated
11. The user can pause the test ONCE for a maximum of 5 minutes(Make it configurable)
12. The total time for test is 20 minutes(Should be configurable)
13. In case pictorial question is also a linked question then consider the question as pictorial only.
14. At the end of the test, all the answers should be sent together. The case can be sent to application review
15. Correlation Coefficient

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Paired Question | |  | Calculation | | | | |
| Paired Question-1 (x) | Paired Question-2 (y) |  | x\*y | | x^2 | | y^2 |
| Score | 1 | 1 |  | 1 | | 1 | | 1 |
| Score | 0.5 | 0.25 |  | 0.125 | | 0.25 | | 0.0625 |
| Score | 0.25 | 0.25 |  | 0.0625 | | 0.0625 | | 0.0625 |
| Summation | A= 1.75 | B= 1.5 |  | C= 1.1875 | | D= 1.3125 | | E=1.125 |
|  |  |  |  |  | |  | |  |
| P1 | 0.9375 |  | | | | | | |
| P2 | 1.6875 |  |  |  |  | |  | |
| P3 | 1.125 |  |  |  |  | |  | |
| P4 | 1.8984375 |  |  |  |  | |  | |
| P5 | 1.37783798 |  |  |  |  | |  | |
|  |  |  |  |  |  | |  | |
| Correlation Coefficient | 0.680413817 |  |  |  |  | |  | |
|  |  |  |  |  |  |  |  |  |

* Parameter P1= (3\*C)-(A\*B)
* Parameter P2= (3\*D)-(B\*B)
* Parameter P3= (3\*E)-(B\*B)
* Parameter P4= (P2\*P3)
* Parameter P5= SQRT (P4)
* Correlation Coefficient = P1/P5
* If Correlation Coefficient is less than zero then score for category Integrity will be marked as 0. It means score for all 9 questions for category Integrity will be zero.
* If there are 4 paired questions then replace 3 with 4 in P1, P2 and P3. Also add the scores of the 4th question in the above table and then perform addition operation.

1. Psychometric test can be taken at any point of time during application stage.
2. Calculate score category wise. Each category will have individual cut-off score and based on the cut-off score, applicant will pass/fail in the category.
3. Analysis of test
   1. How many persons have attempted particular question?
   2. How many of them have scored more than 0.5?
   3. How many of them got full mark (1 mark)?
   4. How many of them got zero mark?
4. Analysis of test
   1. Each category wise cut-off will be decided. Language wise and in total, how many of the applicant has cleared categories (Out of 5 categories)?
   2. Based on cut-off score,
   3. Sample – For all languages.

|  |  |  |
| --- | --- | --- |
|  | **Below Cut off** | **Above Cut off** |
| Business Acumen | 4 | 0 |
| Integrity | 0 | 5 |
| Intention to pay | 0 | 5 |
| Problem Solving | 4 | 0 |
| Risk Taking | 0 | 6 |

* 1. Provide the same kind of analysis language wise.

## Uploads

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## Downloads

-NA-

## Reports

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