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### About insight2impact

insight2impact is a resource centre that aims to catalyse the provision and use of data by private and public-sector actors to improve financial inclusion through evidence-based, data-driven policies and client-centric product design.

insight2impact is established and powered by Cenfri and FinMark Trust. The programme is funded by Bill & Melinda Gates Foundation in partnership with The MasterCard Foundation.

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This document provides practical tips and guidelines for demand-side data collection according to the FinNeeds approach. The first section outlines the steps and elements for

survey.

designing and implementing a full FinNeeds survey, while the second section covers how to integrate FinNeeds elements into a host

# 1 Designing and implementing a full FinNeeds demand-side survey

## 1.1 Survey instrument design

### Structuring a FinNeeds demand-side survey

The FinNeeds framework spans a number of indicators, each rendering specific insights to help us understand financial inclusion from the perspective of the underlying financial needs. These indicators are created from inputs collected from the different data sources as outlined in the toolkit. For a FinNeeds demand-side survey to render meaningful indicators, it is vitally important to design the questions with the end in mind, namely the indicators that the FinNeeds framework seeks to track. As a financial need cannot be measured directly, the focus is on developing questions that gauge the use cases that people experience and how they meet those use cases.

A FinNeeds demand-side survey typically covers the following four financial needs modules:

- Transfer of value or transactions
- Liquidity management and liquidity distress
- Resilience to financial shocks
- Meeting financial goals

These FinNeeds modules are structured around asking respondents about their everyday personal financial experiences. In addition, we may also be interested in financial needs for business decision-makers; people who earn income from running businesses or farming may experience financial needs in their business affairs. Transfer of value and meeting goals are particularly interesting for business or farming applications.

The following content areas are relevant to understanding each of the four financial needs. Each of these content areas should ideally be covered:

- Key use cases and, where relevant, when they take place
- Financial devices used to achieve key use cases
- Functional drivers or reasons for using financial devices
- Experience or anticipated success of financial devices in achieving key use cases or financial needs

#### How does this look in practice?

For the study of "meeting goals", the following is an example of how questions could be layered to cover each of these content areas:

- Are you currently trying to achieve a specific goal that requires a lot of money?
- What are all the goals (use cases) that you are currently trying to achieve?
  - Which is the most important or main goal that you are currently trying to achieve?
    - What are you currently doing/What have you done in the past 12 months to achieve this goal?
    - What is the main device that you used or are using to pay for this goal?
      - What is the main reason that you chose this device to pay for this goal?
      - To what extent do you agree or disagree that this main device has been helpful to enable you to achieve your main goal?



The following section provides more detail on how to design the specific input questions for a FinNeeds questionnaire.

## 1.2 Deriving benchmark FinNeeds input questions

This section outlines four steps to formulating FinNeeds input questions (referred to as "items" in questionnaire design terminology):

- a) Develop the question pool
- b) Write the questions
- c) Deploy good questionnaire design practices
- d) Test, refine and validate the questions

In the following sections, each element is considered in turn.

### a. Develop the question pool

The question pool can be generated in a variety of ways, including:

- A literature review of related research and existing questionnaires
- Interviews with stakeholders and questionnaire design experts
- Qualitative research, such as observations, focus groups, in-depth interviews and ethnography

The FinNeeds framework forms the basis for the question content as outlined further in this section. However, the specific terms and phrasing will depend on the individual context.

### b. Write the questions

Once the question content has been chosen, the actual questions need to be written. Good question-writing is part art, part science. Effort should be made to ensure that each question reflects the underlying construct you are measuring. This can be done by continually referring to the theoretical underpinnings of the framework.

Looking at our indicators, we can see that two taxonomies are important for setting up the options included in the questions, as they become the central lenses according to which the data is analysed. These are the use case and devices taxonomies. Let's consider each in turn.

#### i. Use case taxonomy

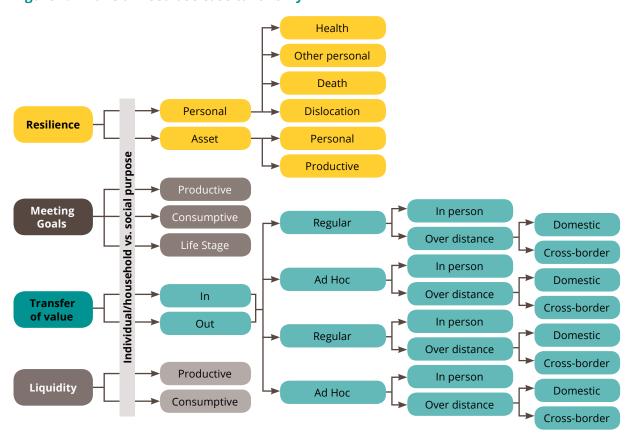
Use cases are the discrete purposes for which financial devices are used. Each financial need has a set of use cases that underlie it. For example, sending money to a relative in another part of the country would be a use case that falls under the "transfer of value" financial need. Making an inperson merchant payment is another use case for "transfer of value". The four financial needs tend to apply to most adults in any given society. However, specific use cases will differ from person to person.

When exploring financial needs, we focus on specific use-case experiences.

Liquidity distress is its own use case where people need to find extra money to fund their regular expenses. The other three financial needs are expressed through specific use cases based on a taxonomy developed by insight2impact. This taxonomy is reproduced in Figure 1 on the next page and documented here.



Figure 1. Financial need use case taxonomy



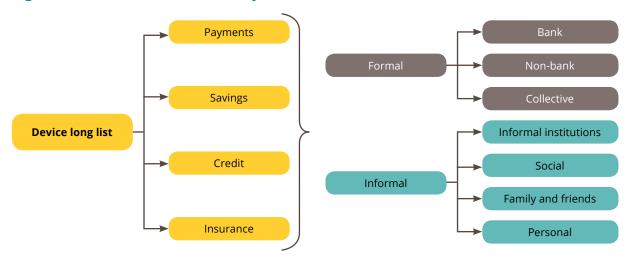
Source: insight2impact, 2017. Catering to every need: A measurement framework for functional financial service needs

Asking about specific use cases, and then grouping these use cases into needs, leads to better reporting of financial needs than simply asking whether somebody has experienced a need. In analysing the data, any person indicating a use case classified under a particular need would be counted under the corresponding need category.

This solves the challenge in communicating generic use cases. Someone may pursue long-term goals, such as putting money away to start a business or saving up for marriage or a dowry. They may

transfer value, such as paying for groceries, rent, utilities and remittances. This approach encourages respondents to recognise their relevant personal experience in the recall timeframe, which is then mapped to the relevant generic use case answer option.

Figure 2. Financial devices taxonomy



Source: insight2impact, 2017. Making good use: A measurement framework for financial service usage

#### ii. Devices taxonomy

Our devices taxonomy provides generic financial device categories which can help to classify any financial product or service. insight2impact's taxonomy of devices is illustrated in Figure 2, above, and documented here.

It is useful to link specific financial devices to specific use cases, and narrowing in on a recent period also helps respondents to focus their attention. For example, in the "meetings goals" module, the following question is asked after identifying someone's main use case:

What are you currently doing/What have you done in the past 12 months to achieve this goal?

This is then followed by a list of potential devices from which they can choose one or more (or indicate "other"). The list is designed according to the device taxonomy, to ensure that each device can be labelled into a relevant device category.

Table 1, on the next page, illustrates this taxonomy with specific examples. The examples cover formal and informal financial providers and cash and non-cash modes for transferring value. Based on this taxonomy, any specific financial device encountered could be classified into the mutually exclusive categories.

Instead of trying to communicate generic financial devices, respondents are encouraged to recognise their specific device or service provider. We then map this to the relevant generic taxonomy category for analytical purposes.

When it comes to financial devices, contextualisation is particularly important. This is because people do not think of generic categories like formal and informal. They often have localised terms that refer to different financial services providers.



**Table 1: Generic financial device categories** 

	Category	Examples
1	Bank-based savings account	Savings account
2	Bank-based credit facility	Credit card
3	Transactional bank account	Bank account
4	Bank-based over-the-counter transactions	Money transfer at a bank
5	Non-bank formal savings	Deposit with a formal deposit-taking MFI
6	Non-bank formal credit	Loan from a formal MFI or mobile money provider
7	Non-bank formal account-based payments device	Mobile money account
8	Non-bank formal ad hoc payments device	Money transfer
9	Formal insurance policy	Life, health or asset insurance policy (from a corporate or mutual insurer)
10	Formal collective savings device	SACCO membership
11	Formal collective loan	SACCO loan
12	Formal collective insurance	Mutual insurance membership
13	Institutionally provided informal credit	Moneylender loan
14	Institutionally provided informal savings	Saving with an informal MFI
15	Institutionally provided informal insurance	Funeral cover from an unregistered funeral parlour (undertaker)
16	Institutionally provided informal payments	Sending money with a hundi or hawala
17	Informal collective credit	VSLA or ASCA loan
18	Informal collective savings	Savings club or ROSCA membership
19	Informal collective risk-pooling	Burial society or community-based health scheme membership
20	Social credit	Loans from friends, family or an employer
21	Social savings	Savings guard
22	Social assistance	Collections for emergency expenses such as a funeral or illness
23	Cash remittances	Sending money by bus or with travelling friends
24	Cash payments	Cash purchases
25	Personal savings	Saving at home or saving in kind

Source: insight2impact, 2017. Making good use: A measurement framework for financial service usage



Table 2, below, provides a few examples of insight2impact's generic taxonomy, alongside the examples used in the FinAccess 2018 survey in Kenya.

**Table 2. Generic financial device examples** 

Generic financial device category	FinAccess 2018 example
Formal savings	Used savings held in mobile banking (e.g. M-Shwari, KCB M-Pesa, M-Coop Cash, Eazzy Loan, Timiza, HF Whizz)
Personal savings	Sold livestock
Informal credit	Borrowed from shylock/loan shark/money lender/money merchant (not from your phone)
Social credit	Borrowed from family/friends/community/church/mosque
Social assistance	Got assistance/gift from friends/family/community (which you did not have to re-pay)
Personal/"other"	Worked more/got additional jobs

Source: insight2impact, 2017. Making good use: A measurement framework for financial service usage

### c. Deploy good questionnaire design practices

The art of question writing is about making content easily understood. Using simple and clear language ensures interviewers and respondents understand the questions, answers and each other.

Best practices in writing survey questions include:

- Explaining important terms before using them in a question
- Asking one concept per question and one question at a time, to help better understand people's answers
- Only asking questions people can answer: ensure that respondents have knowledge or experience on what is being asked and that the questions matter to their situation
- Using simple language
- Being direct and using as few words as possible

- Being clear so that everyone understands the question in the same way
- Being specific, especially for quantities; for example "How old did you turn on your last birthday?" or "Per week, how often, if ever, do you...?"
- Avoiding jargon and acronyms; for example "Have you ever sent money using a cell phone?" is easier to understand than "Do you use mobile money?"
- Being careful how you ask sensitive questions
- Avoiding "leading questions" or phrasing a question in a judgmental way. This is to avoid people answering in a way they think you want them to answer. To check attitudes, you can ask that people "Indicate the extent to which you agree or disagree with the following statements".



- Trying to avoid asking about hypothetical behaviour – "How would you cope with the impact of x, should it happen?" – as it may lead to "idealised" answers that may misrepresent reality
- Being clear about relevant time periods and make this as recent as possible, so that it is easy for people to remember. The period should also fit what is being asked.

## Tip: Work within respondents' capabilities when asking about past events and past or hypothetical behaviour.

To draw the most reliable and accurate answers from a demand-side survey interview, it is important to consider the respondents' capacity to recall the information you are asking for in that moment. For example, respondent answers are more reliable when tied to an appropriate timeframe. This is because our memories tend to be less accurate the further back in time we remember.

Generally, it is best to standardise these aspects in all questions as far as possible. For this reason, a recall period of the past 12 months was set for insight2impact's pilot survey questionnaires. Restricting recall to a 12-month period may have limited the total number of people classified as having experienced certain needs, but it is more useful to target accuracy over broad coverage.

### d. Test, refine and validate the questions

#### i. Testing and refining

Once the questions have been selected and written, they are ready to be tested or piloted. At this stage, cognitive interviews could be used to assess the quality of the items, or a standard pilot of the survey on a small sample of the population could be undertaken. This provides an additional layer of filtering that can weed out poor or redundant questions.

There are three broad approaches to questionnaire piloting:

- Protocol analysis the respondent thinks aloud during the interview
- Debrief (retrospective) the respondent gives feedback after the interview
- Observation no feedback is elicited from the respondent

In general, it is good practice to create a pilot feedback template for respondents to complete after participating. It is also customary to provide space in the questionnaire for the interviewer to record areas where difficulties were experienced or changes to wording were required.

The debrief interview should capture the feedback from the respondent, the interviewer, researcher and other observers. Each will have a unique perspective on how the questionnaire performed.

Some common questions asked during a debrief are:

- Can you tell me what you had in mind when you gave this answer?
- Can you tell me what you understand by this question?
- How clearly can you remember this answer/ question/aspect of the questionnaire?

Based on these steps, the questions will be revisited and adapted.

### ii. Validating

Questionnaire validation involves checking that survey questions give answers that fit reality.

To ensure that questions are valid, it is important to ask the following two related questions when finalising the questionnaire:

- Which of the question approaches are best understood?
- Which of the question approaches may best map a lived reality?

Questions are valid when people give answers that are the same as how they behave and think in the real world. Best practices in validity include:

- Finding examples of proven signals for the behaviour required, for example, transactional data or other surveys. Run correlation tests of the pilot questionnaire answers with these signals, and seek high correlations.
- Checking that similar questions and measures are different enough from each other and that these differences make sense. They should be different in ways that give you more information to make them useful. Leave out questions

that are too similar and do not add more information.

- Checking that answers line up with the associated behaviour. For example, if someone is asked if they follow a budget and they say "yes", it should be possible to check that they do in fact have and keep to a budget. This is respondent-level validity. There will be a need to collect information on people's behaviour for this check.
- Using the information collected on people's behaviour to test other correlations. This means to look at people that have answered in different ways and check that they also behave in different ways, this behaviour should be reflected in their answers.

### Why validation matters: An example from an insight2impact pilot study

As part of the validation process, it is necessary to work closely with final implementers and to check that appropriate local-language terms are used in translation.

When insight2impact tested a FinNeeds questionnaire in Mexico , alternative Spanish words used for "liquidity constraints" led to widely different reporting on numbers. This led to a reformulation of the relevant questions.

In the final questionnaire, the decision was taken to use the phrase "money set aside at home" as a device option for dealing with liquidity management requirements. When analysing the data, it was discovered that there was a poor response to that question. Incorporating the word "cash" as an option instead is likely to have delivered significantly different responses to the question of how many people "manage money". If this had been picked up in the validation process, it would ultimately have resulted in better data quality.

## 2 Integrating FinNeeds into existing surveys

When a country has an existing financial inclusion demand-side survey, there may be limited funding capacity or stakeholder appetite for a standalone FinNeeds survey. In such cases, it makes sense to incorporate FinNeeds indicators into the existing survey.

There is typically limited space for including additional content into surveys. This is because many stakeholders lodge similar requests<sup>1</sup> and the questionnaires already tend to be long. This places pressure and introduces trade-offs on which aspects of financial needs to include in a host survey, and how to include these. When incorporating a module or questions into a host survey, content constraints likely mean that you have to prioritise indicators and content. For example, instead of linking financial devices to all use cases for a financial need, a host survey may decide to focus on the main use case, main financial device, or implement both of these shortcuts. In some countries, it may also be relevant to focus on a specific need. Priority aspects to include should be determined by what is relevant to a pertinent policy question in the local context.

The following five steps can help ensure a successful integration of FinNeeds questions into an existing host survey. These steps follow similar principles of question design as set out in the previous section that can be applied to fully-fledged FinNeeds surveys.

## 1. Assess host questionnaire structure

The host survey will have an existing structure and flow. This structure will accord with certain of the key constructs we have already covered, such as use cases and devices. However, these constructs may be explored in a conceptually different manner from our FinNeeds framework. Where similar constructs are covered in the host survey, it means that there are alternative potential entry points for including the FinNeeds content into the host survey.

## 2. Identify an optimal manner to incorporate FinNeeds questions

Considering the potential entry points for content inclusion, identify the most conducive structural approach to seamlessly capture the necessary inputs to construct the FinNeeds indicators. It may be in the form of a separate FinNeeds module or additional questions (or adaptations of existing questions) inserted into the current structure.

## 3. Develop optimised question wording to apply in host questionnaire

Once the ideal entry point to cover financial needs content has been identified, it is important to ensure optimal flow with the existing questionnaire. This entails designing the FinNeeds questions to fit with the wording and style of the host questionnaire.

<sup>1</sup> There are likely to be organisations or donors looking to influence financial inclusion demand-side surveys to focus on key development target groups such as women, youth, migrants to name a few. There is also the need to update surveys to capture market changes such as new types of actors and services being introduced via telco innovations and fintech.



### 4. Pilot in the field and refine

Similar to the testing and refinement phase discussed earlier, conduct field tests, and use quantitative and qualitative techniques to examine how the questions perform. Specifically, the purpose of these pilot tests is to establish whether:

- Interviewers can ask the questions correctly, have appropriate codes for the answers and find the instructions easy to follow
- Respondents are able and willing to answer the questions, or highlight any questions that are sensitive or difficult to answer
- Respondents do not understand any questions or specific terms

## 5. Note where host questions differ from benchmark and hypothesise potential effects of these deviations

Once the questionnaire is finalised, identify the key FinNeeds indicators that may be drawn from the host survey and compare them to the benchmark indicators created from an ideal standalone FinNeeds survey. These indicators will be based on what is possible, given the need to "fit" financial needs into an existing host survey structure.



Once the ideal entry point to cover financial needs content has existing questionnaire.

## 3 Steps in demand-side survey implementation

This section covers some of the basic steps involved in implementing a demand-side survey, including sampling, appointing a research house, choice of data collection method and setting up the final dataset. This content is based on insight2impact's demand-side survey implementation guide found here.

### i. Sampling design

Though it is desirable to implement a nationally representative FinNeeds survey, budget considerations may mean that it is not possible to do so. In such instances, it is important to identify which locality or region the survey should be representative of. The sampling methodology is then applied to ensure representation within the chosen region or area. Proper sampling design is important to ensure that the FinNeeds framework renders credible information. As far as possible, the sampling should align with the approach used by existing nationally endorsed surveys of financial inclusion.

A sampling statistician is responsible for implementing the selected sample. The statistician will need to take the following into account:

- The attributes most important to estimate (different attributes will require different sample sizes)
- The level of precision required across the total sample
- The level of precision required within each stratum or sub-group
- The level of precision required when analysing various segments and demographic breaks, that is, the level of disaggregation required
- The budget available

## ii. Appointment of a research house

The next step is to appoint an experienced market research company to collect the data through fieldwork and to cover key aspects like quality control of fieldwork. You will need to decide on the full list of things the research house should quote on, as well as the key project milestones and delivery timeframe. To get accurate quotes, you should write briefing materials with clear instructions, laid out in our Terms of Reference. There should also be a formal evaluation process to appropriately appoint the research house.

## iii. Survey approach or data collection

Data collection modes vary. Here we introduce the two traditional in-person data collection approaches. We do not cover remote data collection methodologies such as online and SMS surveys.

The first interview mode is a pen and paper interview (PAPI). This involves the manual entry of responses from paper questionnaires onto a database. The second mode is a computer-assisted personal interview (CAPI) whereby responses are automatically synced onto a database. Advances in technology mean that traditional PAPI methods are increasingly being phased out and replaced by CAPI methods.

Either of these collection modes, or a combination of the two, would involve an interviewer administering the questionnaire in person with respondents, necessitating the need for a field team. In-person or face-to-face interview methods require quality control measures which are not applicable to, for example, mobile surveys.

### Paper and pen interviews (PAPI)

PAPI is a long-standing approach to collecting survey data. Most often, it is conducted in person with an interviewer administering the questionnaire to the respondent. Compared to the CAPI approach, there is less programming and pre-routing governing individual interviews. This means that paper-based interviewers have greater leeway on what and how they can ask questions, which requires more training and oversight of interviewers to make sure that the overall survey viability is maintained. The following points are important to consider when using PAPI.

- The paper instrument should be designed so it is easy for the interviewer to administer.
- Interviewers should be trained to use the Kish Grid – i.e. to complete a household enumeration and randomly select eligible members within the household unit (since the random generating mechanism used in CAPI will not be available).
- There should be a procedure for ensuring that suppliers are able to contact interviewers in the field and a surplus of paper questionnaires necessary to ensure a continual supply.
- There should be a timely process for transferring completed paper questionnaires from interviewers to field supervisors, from field supervisors to the location where data entry will occur.
- There should be a policy for maintaining completed questionnaires and coversheets in a secure location to ensure protection of respondent confidentiality.

### Computer-assisted personal interview (CAPI)

CAPI is a face-to-face approach where the interviewer records responses while they are interviewing the respondent. The survey instrument is scripted and stored on tablets, smartphones, or other handheld devices which replace a paper questionnaire. The following should be considered when CAPI methods are adopted as the data collection mode:

- Training of interviewers should be comprehensive enough to ensure they are comfortable operating technological devices.
- Adequate assessment of connectivity in the study country/region is required to ensure the necessary quality control measures are taken.
   For instance, it is important to be able to sync completed questionnaires offline and power packs and storage devices like SD cards should also be provided.
- Ensure the appropriate sample management system is installed on the device to aid in selection of both household and respondent.
- Adequate time should be provided for testing the CAPI script.
- Develop procedures for the use and maintenance of technology in the field.
   For example, whether interviewers should be provided with paper copies of the questionnaire (or other note-taking materials) in case of equipment failure.
- Ensure there are interviewer management processes in place relating to troubleshooting with team leaders and technical support staff.

## 4 Setting up the dataset for the analysis phase

Once the survey has been administered and the data has been entered either manually or automatically, it is important to set up the resultant database to prepare it for the analysis to follow (as outlined in the technical guide on how to analyse data according to the FinNeeds approach).

Ultimately, data will need to be structured into an electronic data format that is compatible with the software used for analysis. The most important consideration in data structuring is to generate built-in variables designed to simplify the data analysis process.

### **Generating built-in variables**

Creating built-in variables simplifies the later analysis process, since the key variables have already been created. Some of the FinNeeds analysis can be performed on the survey source questions as they appear. However, there are other variables that need to be created from several individual source survey questions. Creating these variables require:

- Methods to create composite variables or indices
  - For example: The Access Strand is a well-known variable created from various questions on product ownership. This classifies someone according to a hierarchy of being banked; if not banked then being non-bank formally regulated; if not formal then a user of informal (non-regulated) institutions; otherwise being financially unserved. This is a composite as many questionnaires have multiple source questions that are used for these indicators.

- Syntax to calculate the most important metrics
  - For example: The Access Strand as a metric
    is implemented through a set of commands
    that takes the input questions for each
    respondent in a dataset and maps them
    onto the Access Strand categorisation.
    This produces a unique access strand
    classification for each respondent. This
    follows a recipe that is referred to as a "do
    file" in Stata and "syntax" in other software
    such as SPSS.

How to generate built-in variables will depend on the interviewing modality. When using a CAPI modality, it may be possible for the final data structuring – including built-in variables – to be designed during the pre-fieldwork programming process. For PAPI interviews, built-in variables will be created manually on the electronically captured database.

Some examples of key variables for analysis that can already be incorporated into the dataset as built-in variables are:

- Percentage of people not meeting their need through formal financial services, for:
  - Transfer of value
  - Liquidity distress
  - Resilience
  - Meeting goals
- Percentage of adults using only cash to meet their "transfer of value" need across the following key use cases:
  - Daily expenses
  - Regular payments
  - Remittances
  - Salaries



- How do people manage liquidity distress?
  - Percentage who use assistance from family and friends
  - Percentage who use credit
    - Percentage using formal
    - Percentage using informal
    - Percentage using social
    - Percentage using personal
  - Percentage who use savings
    - Percentage using formal
    - Percentage using informal
    - Percentage using social
    - Percentage using personal
  - Percentage who sell valuables or assets
- How do people meet their resilience need?
  - Percentage who use formal insurance
  - Percentage who use credit
    - Percentage using formal
    - Percentage using informal
    - Percentage using social
    - Percentage using personal
  - Percentage who use savings
    - Percentage using formal
    - Percentage using informal
    - Percentage using social
    - Percentage using personal
  - Percentage who use other
    - Percentage using social assistance
    - Percentage using personal
  - Percentage who sell valuables or assets

- What do people use to meet goals?
  - Percentage who use assistance from family and friends
  - Percentage who use credit
    - Percentage using formal
    - Percentage using informal
    - Percentage using social
    - Percentage using personal
  - Percentage who use savings
    - Percentage using formal
    - Percentage using informal
    - Percentage using social
    - Percentage using personal
  - Percentage who sell valuables or assets

<sup>31</sup> JUMO. (2018). Uber partners with JUMO to provide driver partners with vehicle finance.

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