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## Data: Ethical and legal issues

This is one of a series of information sheets for people designing and implementing agricultural market information systems in Africa.

**A**s a provider of market information services, you are in the business of gathering, analysing and disseminating data. What ethical and legal issues do you need to take into account?

### Guiding principles

Follow these five guiding principles:

- **Ethics.** Operate in an ethical way. Be transparent. Do not do things that you would not like others to do to you. Ask yourself what would happen, and whether your reputation would be damaged, if your actions were to become public.
- **Law.** Make sure you comply with the law in each of the countries you operate in.
- **Agreements.** Comply with written and unwritten agreements that you have with your data providers, clients and partners.
- **Privacy.** Respect the privacy of others.
- **Security.** Keep the data secure so it cannot be lost, stolen or corrupted.



To determine the ethical and legal issues, we need to map out the web of relationships and agreements (both implicit and explicit) that you develop with the government, your information sources and your clients (Figure 1).

### The government

As a commercial company, you will need to register with the government and comply with the laws governing company activities. In addition, as a company engaged in mobile or internet commerce, you will have to get the appropriate licences and comply with additional rules.






The government may impose restrictions on the types of data you may gather and what you are allowed to do with them. Find out what the requirements and regulatory agencies are in your country. If you operate in several countries, you will need to register and get permits in each one.

For a **list of regulatory agencies** in each country, see [en.wikipedia.org/wiki/List\\_of\\_telecommunications\\_regulatory\\_bodies](http://en.wikipedia.org/wiki/List_of_telecommunications_regulatory_bodies)

### Sources of market information

You will collect data from various sources: farmers, market traders, processors, government information providers (such as the national weather service) and commercial data services (such as a commodity exchange) (left side of Figure 1).

- Some of these information flows are not subject to any agreement: for example you gather price data from markets by asking **market traders**, checking price tags and observing sales. 
- You may also gather data regularly from a selected **panel of traders**, and offer them a free subscription to your service as compensation. Again, there is no written agreement, but there may be an unspoken, implicit understanding: if the trader refuses to give you data, or if the information is inaccurate, you can discontinue the subscription.
- You may gather data about certain individuals in order to make it public. For example, you might publish the names and contact details of **input suppliers**. You should do so only with their agreement, which may be implicit or explicit. They should be able to correct or delete their records if they wish. 
- You may subscribe to free data sources, such as **weather information** 

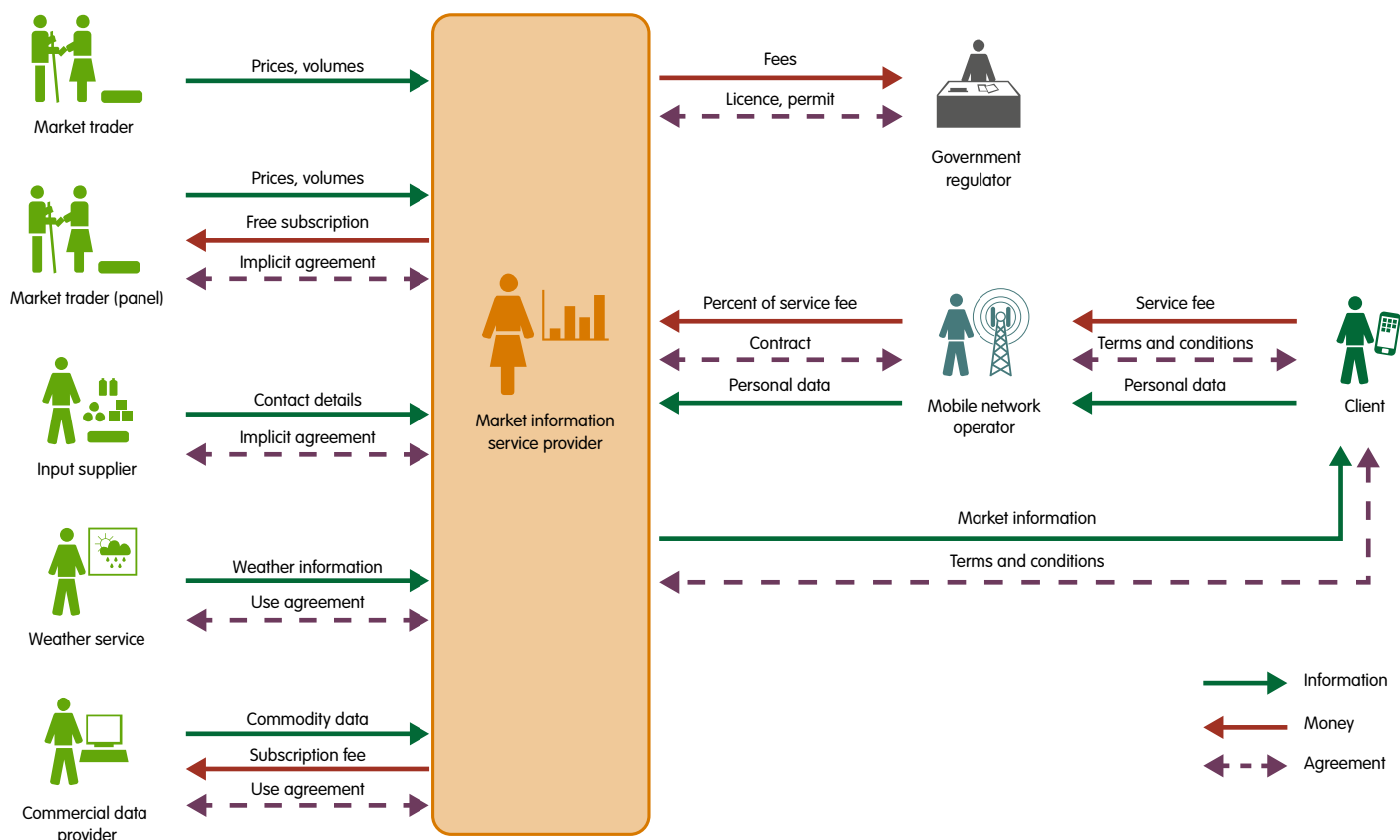


Figure 1. Information flows, payments and agreements among actors in a market information system

or farming advice from research institutes. This information may have been developed using public funds, so the source is obliged to offer it for free. But there may be strings attached: for example, you may have to acknowledge the source, or the source may want you to provide data on usage.

- You have to pay to get data from **commercial providers**, and their data will also come with restrictions. You may have to acknowledge the source, or may be restricted in how much you can make available or in what form. This is so the provider can protect the market for its data.



## Clients

The right side of Figure 1 shows the relations with your clients through a mobile network operator. Your clients get market information from you on their mobile phones. They pay a service fee to the mobile provider (for example, through a subscription or per SMS received). The mobile provider passes on a percentage of this service fee to you.



## Parties involved

Legislation differs from country to country, but in general, three main parties are involved:

- **The platform provider:** the organisation that built the system and hosts it – usually the mobile network operator.
- **The market information service provider:** the organisation that collects the data and offers services to clients.
- **The client or platform user** (farmers, businesses, NGOs, government, etc.).

The platform provider and market information service provider may be the same company (you).

## Agreements

The relationship consists of three agreements:

- **Between you and the client.** When the client signs up to your service, he or she agrees to the terms and conditions stated in an agreement that you draft. The client may accept the agreement implicitly if he or she installs or uses your service.
- **Between you and the mobile network operator.** This agreement will be part of the contract between these parties. Make sure the contract covers all eventualities, including who owns and controls the data gathered. A contract usually covers a service channel, and is not directly linked to the type of content. The network provider will assume that you have the necessary licence to disseminate your information.

- **Between the mobile network operator and the client.** The client will have signed this agreement when buying an SIM card.

Consult a lawyer for advice on legal issues when drawing up the agreements between you, your clients and the mobile provider. Such agreements must be submitted to the national regulator for checking; the rules differ from country to country. Make sure they include disclaimers to protect you from liability, such as: "The market information system provider is not liable for the consequences of action taken on the basis of inaccurate or incomplete information provided."

## Client profiles

In interacting with your clients (especially those using smartphones), you may generate a lot of information about them:

- **Registration information** when they sign up to your service: their name, phone number, payment method.
- **Information generated automatically**, including the device's location, what other apps are running, and how much network traffic they use.
- **Information inputted by the client:** the subjects and locations he or she is interested in, the data accessed, the frequency of use, the content of SMS queries, etc.

This information enables you to build up a profile of each client. This is useful for several reasons:

- So you can provide a **targeted service** to each client. For example, you may want to know the client's location so you can present information on prices in nearby markets.
- So you can **monitor your services**, ensure that they are working smoothly and develop new services to suit your clients' needs and expand your business.
- Perhaps so you can **sell advertising space** to commercial partners, if this is part of your business model.

Problems may arise especially with the third of these reasons. Your clients' profiles are particularly valuable for advertisers, since they can use them to target particular groups that they regard as a good sales prospect. For example, an input supplier may want to target rice farmers in a particular area. A fast-food chain may want to attract customers within a certain age range. A bank may want to advertise its credit facilities to people in a certain market segment. Google and Facebook have built their businesses by offering free services to users, collecting information about them, then selling this information to advertisers. But clients may be concerned about privacy, or fear their information will be misused or passed on to others.

## Questions on using data

### Who owns the profiles of your clients? Do you need to get their consent to use their profile?

In principle, each client owns his or her own profile, and you need the client's **informed consent** to use it. Include this consent as part of the terms and conditions for using your service. Allow clients to know what information you collect about them, and allow them to correct and delete it if they wish.

If you later want to use the data for any purpose not covered by the original terms and conditions, you will need to seek additional consent from each user.

Problems with this system include:

- Terms and conditions are often written in lengthy legalese and are presented in a tiny font. Most users do not read them; even if they do, they do not understand what they are agreeing to.
- It may be impractical to get the clients' informed consent. They may be illiterate and unfamiliar with communication technologies. They cannot understand the terms and conditions. Distance or local culture may prevent you from informing clients about their rights or getting their consent. For example, if your sales staff are male, but men are prohibited to talk to women in the local culture, how can you get their consent?
- It is hard for clients to tell whether an agreement has been broken. Violations may not be pursued by the authorities.

You may need to design different agreements for different types of clients. Traders, for example, may welcome having their contact details made available to others; farmers may not.

Have a short, clear, simplified privacy policy for general use, and refer people to the full legalese version if necessary.

The mobile provider collects the data, since it runs through its system. Make sure that your agreement with the mobile provider specifies what data it will pass on and who owns it.

### Can you control how your market data are used?

Once you have published market data, it is very difficult to control how they are used. You can insist that users cite you as the source, but in practice you have to rely on their honesty. You can monitor other data providers to make sure that they are not using your data without permission.

Conversely, you should not use data from other providers without their permission. If you do use their data, make sure you clearly acknowledge the source.

### How can you protect your name and brand?

Your name and brand are valuable intellectual property. Make sure you register them as trademarks in each country where you want them protected. Periodically monitor how your brand is

being used to prevent others from using it in an authorised way. Be prepared to take legal action to defend it if necessary. Some countries have not yet signed international copyright conventions, making it difficult to protect your intellectual property.

**Can you use data from government or other public sources? Can you build a business on them?** If the data are publicly accessible, you can perform analysis on them, and you can sell services based on the data. Make sure you cite the source (for example "Source: Ministry of Agriculture, Kenya").

**Can you sell (or make public) information to advertisers and suppliers?** This depends on the agreements between the parties involved.

The government may decide to ban the publication of specific information. For example, in Nigeria and Mali, market information services have been forbidden from disseminating information on food stocks and flows.

**Should you anonymise client data?** Respect the privacy of your clients. Even if you have their informed consent, do not pass on details that make it easy to identify them as individuals. For example, you might sell a list of mobile phone numbers for a particular group (such as rice farmers in district X), but not include the names and addresses associated with each number.

Better, offer to carry advertisements with your messages to a particular group, but do not pass on any details about individual clients to the advertiser.

Do not reveal information that is likely to be detrimental to individuals or groups.

Some countries (including those in the European Union) have very strict data-privacy laws. Others (such as the United States) treat personal data as a commodity that can be traded. Some countries have copied the European approach; others do not have data-privacy laws, or have laws that they cannot enforce.

**Should you cite sources?** If you use information from other published sources, then acknowledge them. Do not claim (or appear to claim) the information as your own.

If you produce news alerts citing individual opinions, then identify the source ("Ali Muhammad, a grain trader in Mombasa, says he expects the price of maize to rise"). Make sure you get the interviewee's permission to do so. But if you interview several traders and they all say the same thing, it is not necessary to name them all ("Traders in Mombasa expect the price to rise").

If you disseminate production tips from a research institute, check what your agreement with the institute says. You may be required to give the name of the individual and the institute concerned. Indeed, you may wish to give this information in order to gain credibility for the tip.

**How should you keep data on clients?** Make sure they are **secure**.

- Keep sensitive information (names, contact details, email addresses, mobile phone numbers, passwords, bank account details, medical information, etc.) encrypted and in separate files from other information.
- Encrypt the data during both transmission and storage. Protect the files with secure passwords.
- Store sensitive data on as few computers as possible – preferably not connected to the internet.
- If you use cloud storage, make sure the system is secure, and that only authorised people have access to it.
- Keep data only for as long as you need it. Laws in some countries require you to delete certain types of information (such as on mobile phone use) after a certain time. The law may also require you to keep data for a certain number of years. You will need secure storage and a reference system for such data.

## Agricultural market information systems in Africa

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