

Transaction Security Service (TSS) Deal Operations

1. What is a Transaction Security Service or TSS deal?

Transaction Security Services TSS is a brand that is applied to a particular type of service. This service ensures that sellers and buyers who are remote from each other can agree in advance what their deal will be and that then the deal happens exactly as agreed. The TSS service makes sure that:

- The agreed amount of produce is transacted
- The agreed quality of produce is transacted
- The transaction is at the agreed place and on the agreed time
- The payments are made as per agreement
- It is possible to track each bag or crate or basket from the buyer back to each individual farmer
- It is possible to track the transaction so that if something didn't work out as agreed then the mistake can be identified and corrected.

The brand-holder of the TSS brand makes sure that the above is assured, and guarantees that in case one partner fails to fulfil his commitments then the other partners will get back any money that they already spent on this deal. TSS registration usually only makes sense for larger deals, eg. for at least one full truckload of 10 tons that go over larger distances outside a District. Smaller local deals can be undertaken without the need for registration. But the TSS licensed service provider must still follow the TSS quality requirements to keep the license. Of course if buyers and sellers wish to get the guarantee, and if there is anything special about a deal, it can still be registered even if it is smaller than 10 tons.

2. Why register these deals?

The brand-holder cannot guarantee the deal unless the commitments of the partners in the deal are written up, agreed, and signed. The people who control and make sure of the deal are people licensed by the TSS brand-holder to provide this service. A deal must therefore be registered with the TSS brand-holder so that tracking can happen and the guarantee can be provided. Only licensed TSS providers can register a TSS deal.

A deal is registered with a form (see below) that is then available on the website of the brand-holder. All registered deals can be tracked via internet or SMS.

3. Only network members can operate registered TSS deals

TSS deals require a third party that ensures the operations and controls the quality. It is the licensed TSS providers who do this. We call such members Market Access Companies, MAC. They need to be in a network. All network members involved in a TSS deal must be licensed by the TSS brand-holder.

For deals that cover a large distance one MAC will organize everything with the buyer, and other MACs organize everything with the sellers. They are coordinated through the National Market Company (NMC) which is also licensed by the TSS-brand holder.

4. The deal registration form

The registration form acts both as the contracts as well as for registering the deal. The MAC that discusses with the buyer will sign with the buyer, while the MACs that discuss with the sellers will sign with the sellers. They all sign the same form, but in separate contracts. The commitments between and among the MACs and NMC are already taken care of by the network agreements and related licensing.

Once the form is ready and finalized, it is submitted to the TSS brand-holder (RAVI) who will approve it and then upload it on the internet. Only once up on the net is the TSS brand applied to the deal by providing a registration number that interfaces with the tagging system for the bags or crates of that particular deal.

5. Instructions on the registration form

These instructions refer to the Excel file: BizPractices6 TSSregister.xls

General comment:

- The figures in the template are not correct. They are only placeholders. You need to put in the correct figures in the white cells.
- The yellow cells (grey if printed out) are calculated from other cells, so nothing should be entered there. Rather you need to enter into the cells from which a yellow cell is calculated (double click on a yellow cell to see from where it calculates).
- MACs with buyers fill out as far as possible with buyers, and MACs with sellers fill out as far as possible with sellers. Then they coordinate and make sure both of them finally have the same version of the document.
- A more complex form is available for deals across national borders, with diverse currencies, but not discussed below.

Sheet “Main Calcs”

“Commodity” and “Quality specifications”

Make sure that the commodity is described as well as possible. The target must be that both buyers and sellers are totally clear what shall be collected and packaged at the collection point.

Transaction Unit:

This is a bag or crate or box or basket or jerrycan or container or whatever kind of way in which the produce is traded. In “Further specifications” make it very clear what the packaging will be, ie. type of bag, type of box, etc. T

he gross weight is the unit including the package, the net weight is the weight of the produce inside the package of a unit.

F44 is automatically provided after the deal is approved as a TSS-operated deal.

Transport Unit:

This is the minimum amount that needs to be ready for transport. If there is less than that, it can not be part of this deal.

Total Volume:

C44 is the important total amount that the buyer commits to buy according to this contract.

Collection points

Make it clear what the locations and schedules are.

Delivery:

Make it clear what the location and time of delivery is

Middle costs

Don't touch this yet, it will be calculated from the sheet “Middle Costs”, see below

However, *F88* is the most important entry: It is what the farmers will get cash-on-the-bag for each transaction unit, with no deductions of fees or commissions, etc.

Also, *D94* is important for the TSS network. It is usually 10%, but may change depending on negotiations.

Budgets for payments at different places:

Don't touch this yet, it will be calculated from the other sheets. See below. This helps in making sure enough money is at the right place at the right time.

However, in **E109** you have to enter in case the transporter insists on an advance before driving off.

Cash-on-the-bag facility for buyer

The cash-on-the-bag facility (COB) is only available for TSS deals. See separate instructions on COB fund management.

Network Responsibilities

Here you enter those people who will be responsible for the correctness of the deal. They are the same people who then sign at the bottom. If there are too many fields, delete them. If there are too few fields, add more.

Only after the whole deal is finished and everything cleared will the buyer pay the commission. That is the total commission. That total amount is then distributed among those network members who were involved in making this deal a success. The distribution usually is 35% to people who worked with the buyer, 35% with people who worked with the sellers, 20% to NMC and 10% to RAVI. That means that if the total commission of a deal is 10%, RAVI will get 1% of the total deal, NMC gets 2%, etc. But these figures are negotiable.

Cases and Guarantees

Make sure the buyers and sellers understand this before they sign.

Signatures:

This is only done when all the figures are clear and both the seller side and buyer side have the same version.

The MAC with the sellers signs the Seller side. That means that MAC is accountable to the sellers for making sure this deal happens according to the agreements written in this contract.

The MAC with the buyer signs the Buyer side. That means that MAC is accountable to the buyer for making sure this deal happens according to the agreements written in this contract.

Note: Buyers and sellers do not contract directly. Usually they don't know each other well enough to trust each other. So buyers and sellers each contract with their respective MAC. The MACs are then accountable to each other and the NMC through the procedures and commitments of being in the network of licensed TSS providers.

Sheet "Middle Costs"

Generally just enter the correct figures in the white cells. The yellow ones will calculate automatically.

Transport

Be careful to clearly define the transport company. For a large deal with products coming from diverse areas, there may be many transport companies. So fill out a field for each company. Also check whether they have an insurance for goods in transit. Make them show it to you. Otherwise consider the next field.

D28: This is the negotiated price for one truckload from collection point to buyer.

Insurance of goods in transit

All TSS deals must have some insurance for goods in transit.

Taxes and fees in transit

These are the fees and taxes that the truck must pay on its way from the collection point to the buyer

Loading and offloading

Usually at the collection points the farmers themselves load the truck. In that case the figure in *I45* is zero.

Storage

Sometimes storage has to be calculated. But sometimes this can also be zero

Bank charges

When the money is transferred from buyer to the seller MACs or via the COB fund to the seller MACs, then bank charges may apply.

Sheet Payment Procedures

This sheet is a step by step checklist for making sure the correct amounts of money are paid to the correct people in the right sequence. So each number is a step. This is for easy tracking of the deal.

F5: This is what you have to enter if the COB fund agrees to provide a COB credit to the buyer. If no COB funds are required, then the amount in F5 is the same as in F4. That means the buyer pays an advance so that the MACs working with the sellers are able to pay the farmers when they deliver at the collection points.

F9: This is the amount that the COB fund manager agrees to provide for this deal in case the buyer does not want to pay the advance and only pays the full amount when he sees the produce delivered at his place.

TSS Deal Operations: Setting Prices

Over the last few weeks we discovered in Uganda, Kenya and Tanzania how to determine prices in Transaction Security Deals. The challenge is that our network must be able to cover the middle costs and the commission it needs, and still the prices should be attractive for both the selling farmers and the final buyers.

Let us be clear what we are talking about:

1. The selling price is what the farmers get cash-on-the-bag at the collection point.
2. The buying price is what the final buyer pays on delivery at his place.
3. So the buying price includes:
 - the selling price
 - all the middle costs that our network must pay to people outside our network
 - the commission to our TSS network

1. So what are the middle costs?

A. All the costs at the collection point

These include:

1. make sure bags or crates are available that fit the requirements of the buyer
2. make sure tags for each bag are available according to our network specifications
3. (grading and packing. This should usually be done by the sellers themselves at the collection point under supervision by the IBM or MAC. So usually this should be no middle cost).
4. (loading. This should also usually be done by the sellers themselves. So this should usually not be a middle cost).
5. (offloading. This should usually be done by the final buyer, so this too should not be a middle cost).
6. warehouse rent at the collection point, if we are using a warehouse to bulk and prepare the crop for transport.

B. transport

C. insurance for goods in transit

D. road tolls and market fees, etc.

So for each transaction we must be clear what is the total of A+B+C+D. That is the middle costs our network must organize and pay to people outside our network. All of our own costs like: time, travel and communication costs, must be covered by our commission.

2. What is the commission?

The commission must be calculated as a percentage of the value of the goods delivered at the buyers place. That is the selling price plus all middle costs.

For instance if the selling price is 1500 per kg and the transaction is 10 tons, and if the total middle costs are 2'000'000, and if our network commission is 10%, then:

- the farmers get cash-on-the-bag a total of $1500 * 10'000\text{kg} = 15'000'000$
- then we add the total of the middle costs: $15'000'000 + 2'000'000 = 17'000'000$
- From that we calculate the 10% commission. It is $17'000'000 / 100 * 10 = 1'700'000$
- Now we add the commission: $17'000'000 + 1'700'000 = 18'700'000$
- So what is the kg price the buyer has to pay? It is $18'700'000 / 10'000 \text{ kg} = 1870$.

So now we see: If the farmers are happy to get 1500 per kg cash-on-the-bag, and if the buyer is happy to pay 1870 upon delivery at his place, we are in business. If not we have to find out how to reduce the middle costs. That is the challenge our network faces.

TSS Collection Point Management Practice

1. What is a TSS Collection Point?

This is where the registered TSS quality control agent (eg. IBM or MAC) checks the products and tags the bags. A collection point often is at a local warehouse. The collection point is usually run temporarily, ie. for one or two days for each deal. But of course it can become a regular and ongoing business closely related to the warehouse management. There is at least very good mobile connection at the collection point, preferably also internet.

2. Who is Collection Point Manager?

These are Information Board Managers and/or Market Access Companies who are licensed to operate with the TSS brand, ie. Transaction Security Services. This means they are in constant contact with the National Market Company for organizing and preparing the transactions according to the requirements of both buyers and sellers. Collection Point Managers are well versed in using phones and/or laptops for organizing the data and the communication required for TSS.

3. What does a Collection Point Manager do?

- a. Inform producers well in advance through adverts on Information Boards, radio announcements, etc, about:
 - the collection point location and dates,
 - the quality requirements for the produce,
 - the confirmed prices and means of payment and
 - what will be the options for produce that fails the quality tests.
- b. Prepare all the logistics and materials required for operating the collection point
- c. Ensure correct stocking and security in case the transport is not at the collection date
- d. Arrange all issues with the local warehouse
- e. Arrange for outlets for rejected produce that does not pass the quality check
- f. On the date itself instruct and supervise the producers in preparing the produce for stocking and/or transport.
- g. Control the produce on its quality, then tag each transaction unit (bags, crates, baskets, etc) and immediately enter data into database, to be forwarded on the same day to the coordinator of the TSS deal
- h. Pay producers cash-on-the-bag or whichever payments mechanism was agreed.
- i. Finalize any pending issues with each deal with producers.

4. Typical Collection Point Checklist:

1. Is there a good clean and safe room where you can stock the produce until it will be transported?
2. Is the security organized for keeping the produce safe?
3. Do you have all the equipment to do the quality checking?
4. Are farmers available to do the work of cleaning and checking the produce and then packing and tagging it? You have to supervise, but they do the work.
5. Are there farmers who want an advance payment cash-on-the-bag? Do they know that if they don't request advance payment they get a better price? This is because a cash-on-the-bag advance has an interest of 1% per week.

4. Typical Collection Point Checklist (continued):

6. Is the price per kg fixed for that advance payment cash-on-the-bag? And what is it for later payment? Is it clear to everybody?
7. Do you have the cash ready for paying cash-on-the-bag? Or cheques?
8. If other means of payments are agreed, do you have everything ready to ensure the payments can be made?
9. Is the weighing scale ready? Is it checked?
10. Are there enough good and clean bags available, all of the same standard agreed size?
11. Are the tags ready to be attached to the bags?
12. Is it clear what will happen to the produce that fails to pass the quality test?
13. Are enough receipts printed so that each farmer can take one home after delivering the produce?
14. Do you have registers and pens etc. to make the required notes for yourself?
15. Is your laptop working and charged and do you have the correct documents downloaded so you can enter the tag-data?
16. Do you have the registration numbers of all the producers in the area who are already registered, so you can enter their numbers on the tags?

Product Tracing for Transaction Security Services (TSS)

Why we trace products with tags for TSS.

We want to be able to track each and every bag and crate or basket back to the original farmer. But it is too complicated to enter all his address and everything. We also need a system that the registered control agent (ie. IBM or MAC) can use to fast enter into a computer system.

How does a tag look like, and what is the information

Example:

TSS 19,21,311,417,55,61,71,81
info mob: +255 754 829 751

If a buyer in Dar es Salaam or Blantyre or Nairobi wants some information about this bag, he can ring that number on the second line (that is the number of the TSS-NMC). Then you tell him to give you the number in the first line. You can check it with the Excel in your computer and then you know:

This is bag number 5 from the farmer Rafiki Mlandizi in Magunguli in Tanzania, it belongs to the auction about finger millet that was held on November 15th, and it was checked by Bahat Tweve, it was transported and delivered by CB company Ltd on truck number XXX on date YYYY to a buyer who is ZZZZ.

Coding: (see the Excel file: BizPractice1 Tagging Register)

A series of numbers separated by commas

First number always starts with 1, second number always with 2, third with 3, etc.

1. First number is year (19 = 2009, 110 = 2010))
2. Second number is registration number of deal (21 = first deal registered in 2009)
3. Third number is registration number of control agent (311 = Bahat Tweve)
4. Fourth number is registration number of individual farmer (417 = Rafiki Mlandizi in Magunguli)
5. Fifth number is serial number of bag from this particular farmer (55 = the fifth bag)
6. Sixth number is the number of the load (61 = the first load with truck number plate and responsible driver)
7. Seventh number is the registration number of the transport company (71 = CB company Ltd in Mafinga)
8. Eight number is the registration number of the buyer (81 =?).

A deal number is always the first two numbers together, ie. 19,21. The first registered deal in 2010 will be 110,21.

A farmer is always identified together with the control agent, ie. 311,417. There may be another farmer on position 17 with another control agent from Tanzania, whose registration number will be 312. So that farmer will be identified as 312,417

Procedures when tagging (also refer to Excel)

1. Buy tags and find out how to attach them to the bags. Now you can prepare by writing on all tags
TSS 19,21,311,
info mob: +255 754 829 751
2. During the collection date after checking each bag, you add the red numbers to the tag (of course they are only red on the Excel. On the tag you write with big markers of any colour).
3. Each farmer gets a number which starts with 4. In the sheet "Registrations" you can add each such farmer and give him a registration number. You yourself have the registration number 311 for being a MAC. You yourself as a farmer have the registration number 311,41
4. Then each bag has a different number. So if a farmer has four bags, each bag gets a different tag with a different last number that always starts with 5. So 51 is the first bag, 52 is the second bag, 53 is the third bag... 523 is the 23rd bag from the same farmer.

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5. Every time you add a number on a tag, you also add it on your computer in this Excel. You can of course also do it on a blackboard and then copy into your computer, but that is more risky.

6. Now these bags with their tags are in the lot ready for auction. So now for instance this is what you see on each tag on each bag:

TSS 19,21,311,43,52

info mob: +255 754 829 751

7. When the bidding is over and you have organized a transporter, then the truck comes to the lot and the bags are loaded. Now you sit there and each bag that is loaded gets three more figures added to the tag. So the loaders shout the number of each bag to you before they load, you check in your computer and find the right line of that bag under the TAGS sheet, then the loaders add the further numbers you dictate to them:

Loads 6XXX

The registration numbers of the loads always start with 6. A load is a unit that is being transported, for instance a truckload. So 61 means this is the first truckload that is transported. Now also make sure you have the registration of 61 correctly done in the Registrations Sheet (truck number, responsible driver, etc).

Transporters 7XXX

The registration numbers of the transporting companies always start with 7. 71 is CB company Ltd in Mafinga. Make sure you register them correctly under "Registrations".

Buyers 8XXX

The registration numbers of buyers always start with 8.

So each bag gets these three numbers (6x, 7x and 8x) added, and at the same time you finalize the update in your TAGS sheet. Then the bag goes up on the truck.

Then the next bag goes through the same process.

So, when the truck leaves the warehouse, you have all the figures of each and every bag in your computer.

TSS Double-Loop Deals Operations

1. What are “TSS Double-Loop Deals”

Double loop deals are a special kind of operation for Transaction Security Service (TSS) deal making. These deals connect the collection of produce from multiple collection points with the distribution of produce to multiple vendors. Farmers are paid at each collection point for their produce and vendors pay on delivery of the produce. Thus double loop deals link a collection loop with a distribution loop.

Collection Loop:

There is a loop for collecting the produce. This means a truck travels to all the pickup-points in the villages and loads up with the produce that buyers have already ordered. Usually, before the truck leaves the producers are paid. Then it travels to the large city. The collection loop is organized by a Market Access Company MAC in the rural areas.

Distribution Loop:

After entering the city the truck travels to all the buyers according to the most efficient route and offloads the produce at the doorstep of each buyer. Usually, before the produce is offloaded the buyer has paid for it. The distribution loop is organized by a MAC in the urban center.

Criteria for it to work:

1. Double-Loop Deals only work with clear cut advance trading (ie. “Biashara Mapema”): The truck only does the collection run when the buyers are all clear, the trade agreement signed.
2. Sellers can of course be farmer groups. It is not that the truck will drive to each and every farmer, but rather to one or more collection points. It is like a dairy truck picking up milk. Usually double-loop deals are also for regular delivery to the buyers.
3. This means double-loop deals can only work with very good network organization and instant communication through database entries and mobile phones, and safe and reliable money transactions, even “cash-on-the-bag” if need be. This interaction between the two MACs in the rural area and in the urban center is organized and supervised by the National Marketing Company NMC. This is the network.
4. The distribution run is also not always to the end buyers, but to retail traders in local satellite markets or supermarkets.
5. Seasonal fluctuations of produce are dealt with by planning for the produce to come from diverse areas with diverse harvesting times. This means that the collection loop will always be organized where the best conditions are for shipping to the urban center. This seasonal planning is the task of the NMC.

The niche for double-loop-deals therefore is that modern communication technology is used to organize time-sensitive operations which allow for produce to go directly from rural areas to the local urban markets, bypassing the inefficient and often corrupt wholesale market operations in the urban centers.

2. Typical procedures

1. MACs and NMC together explore the potential markets for the produce and try to match the delivery schedules with harvesting seasons in diverse locations.
2. Urban MACs then negotiate with buyers, while rural MACs negotiate and organize the producers. NMC coordinates.

3. A TSS document is formulated (Transaction Security Services). This document describes the procedures of the double loop from farmers to buyers:
 - a. The services of the network and what it costs
 - b. The process by which the prices are fixed for farmers and for buyers
 - c. How the commission for the network is fixed
 - d. The communication schedules and accountabilities for information
 - e. The means of payments
 - f. The guarantees
 - g. All prices and commissions are always transparently communicated.
4. The collection loop partners then sign the document, ie. the rural MAC and the producers. Separately the distribution loop partners sign the same document, ie. the urban MAC and the buyers. The network members (ie. MACs and Regional Managers and the NMC) are all accountable to each other through their license as network members, and therefore there is no need for a separate agreement between the rural and urban MAC and the NMC.
5. The deal is then submitted to the TSS brand holder for approval. Once approved, the deal can proceed.

3. Required tools and databases

Double loop deals are highly information intensive and require reliable and fast-moving databases. These must be managed by the NMC.

The following information needs to be organized:

1. Registration numbers for each producer (for the tagging of the bags)
2. Registration numbers for each buyer (for tagging of the bags)
3. Registration numbers for trusted transporters (for tagging of the bags)
4. Track record for buyers, producers and transporters, ie. be able to check back for each of them whether they are reliable or whether there had been problems in the past, and the nature of those problems.
5. Insurance for produce in transit: System for fast submission and approval of insurance
6. Tagging system for tracking bags for immediate checking at whatever point they may be.
7. All information required to move cash from buyers to producers "on-the-bag".
8. All information required for very fast response (within hours) for taking care of any problems during transit.