



INNOVATIONS FOR SUCCESSFUL SOCIETIES

*An initiative of
the National Academy of Public Administration,
and the Woodrow Wilson School of Public and International Affairs
and the Bobst Center for Peace and Justice,
Princeton University*

Oral History Program

Series: Civil Service
Interview no.: E5

Interviewee: Priscus Kiwango
Interviewer: Andrew Schalkwyk
Date of Interview: 20 November 2008
Location: Utumishi House
Dar es Salaam
Tanzania

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SCHALKWYK: All right, today is the 20th of November. I am at the Utumishi House in Dar es Salaam with Mr. Priscus Kiwango, the acting director for Management Information Systems in the President's Office, Public Service Management. Before we start the interview, can I just ask that you've given your consent for this interview?

KIWANGO: OK.

SCHALKWYK: All right.

KIWANGO: Yeah.

SCHALKWYK: Thank you very much. Most of this interview's going to talk about the reform process that's been happening at the civil service in Tanzania, and I'd just like to ask you, could you tell me what you do now, and your responsibilities, and what jobs have brought you to this position?

KIWANGO: *As you mentioned, my name is Priscus Kiwango, and I am the acting director of Management Information Systems within the President's Office, Public Service Management. Now, under the directorate of Management Information Systems, we are implementing Public Service Reform Program, which is one of the main functions of this ministry. And under the Management Information System, we are reforming the government, in terms of the use of information technology. I think, as you know, IT is among the tools that you can apply to the business process -- you know, that to reform the processes, in terms of speed, accuracy, transparency, in order to serve the public. Now, the directorate of Management Information System was established since 1998, and it has two main functions. The first one is the implementation of a government policy within the government. And under a government, what you are trying to do, we are trying to apply technology in the business process of the government in order to transform them and better serve the public from the manual processing to the technology -- to the processes that use technology. Now, the second part of the functions of this division is the computerization of the human resource of the government. As you know, and this ministry has the responsibility of the management of the human resource of the government. Now, we are implementing an information system that helps to computerize human resources. And this initiative, we are implementing an application system called Lawson -- is American-based, the product -- and we started it since 2000.*

SCHALKWYK: All right. What are the main goals of the Computerized Human Resources System?

KIWANGO: *The main goal of the computerization of the human resource is -- maybe I can categorically break it into two. One is to simplify the management of the human resource, and the other part is to give the employees accurate data and easy access of the information related to the particulars. For example, if an employee wants to view his or her personal information or get reports relating to the government policies, it's now very simple to get it, through computerization. And the management perspective is now very simple to get information that can help decision-makers to make their decision very quickly and accurately.*

SCHALKWYK: So what sort of information can managers get?

KIWANGO: *There is a lot of information, and maybe you can break it into two. One is the human resource, and another one is on the payroll side. On the human resource, there are basic reports that a manager needs for the management of human resources. For example, in the career development and the living entitlements or the salary side. And on the payroll side, we have things like the pay slips, bank information, and so on.*

SCHALKWYK: And when was this -- the Computerized Human Resources System implemented?

KIWANGO: *I can go back to 1993, when we started the Civil Service Reform Program. At that period, we didn't have a computerized system, and the first initiative was how we can collect the data, because we didn't have a computerized system at that time; we had a manual system. Now, we started with the idea how we can get the data. You know, the geographical information of our country; it is very big. We have about a [Indecipherable] radius, I think. It expands to thousands of kilometers. So we thought how we can get information, especially on the local government. Now, we -- in 1998, we issued a special form that could help us as a tool to collect the human resource information from the employers. In line with that activity, we started to develop terms of reference for the consultant to help us develop a computerized system that we could use to key in the informations which we intended to collect. After the development of the terms of reference, the decision was we could get the system, and maybe procure it internally or outside the country. We advertise it, and one company won that assignment, and they supplied their software called Lawson. At that period, I think it was 2000, we acquired that system. We started implementation in 2000, and up to the mid of 2000, we were already implemented the part of the payroll, because the system is the integrated human resources and payroll. And in line with implementation, we started to key in the data which we collected using that form. And I think by the end of year 2000, we managed to have the payroll running on the new system. From there, we started to develop the HR side of the system, now to key in the important information for the employees. We managed to key in most of the employees' data, but due to the needs of the payroll -- because we need to run the payroll -- employees need to be paid, and we need to pay them. So it was very difficult to -- while we are developing the HR side, we also need to make sure that the payroll side is working. I think by 2002, we managed to have at least the seven key attribute of the HR information to the system. Now another --*

SCHALKWYK: What were those attributes?

KIWANGO: *It was the employee check number, we call it -- it is employee number; in the government, we call it 'employee check number' -- the names -- both -- three names, I think -- yeah, first name, middle name, and last name. We had the department -- the ministry which the employees work -- the department, the location of pay, pay information, employee status, birth date, and...employee deductions. Yeah, I think -- yes. But we still needed to have more attributes, like employee benefits and so on. But the problem was we are -- we were working on the two models of the system. And it just seemed that the payroll module at the beginning was the important, to make sure that employees have been paid. At the same time, we are supposed to have the system rolled out to the employers so that they could manage to enter their shared data at their location. So instead of bringing all the forms at this center point and just started to key in, we thought that it would be good if we could roll out the system to the ministries, departments, and agencies, so that the employer had their own location to manage the data set of their employees. So we started that initiative in 2003,*

and we managed to roll out to -- up to 19 ministries. But another problem occurred, that the system we procured now -- at that time, had five layers. And I think you know, in the area of technology, technology is changing every day. So we had a limitation on the system, especially on the rollout, that the system couldn't meet all the user requirements at that time. Maybe when we procured it and implemented it, it could meet these requirements, but everything is changing, and now there are new technologies and so on. So we were supposed to make sure that maybe we could upgrade the system up to the level of the current technology that existed at that time. Now --

SCHALKWYK: What sort of limitations were those? What were you trying to do that you couldn't with the old software?

KIWANGO: *One of the biggest limitations was whenever we need to roll out, we need to install the infrastructure. We must have the wide data network to link the ministries or within the ministry itself, we need to install the local data networks. That was the first. Secondly was the system interface was very limited, and the user-unfriendly, because it was developed on the client server technology, and at that moment, the system manufacturer had already upgraded to another version, which is web-enabled. And through that technology, I think it also could be very simple to roll out. Because through web technology, through using Internet Explorer, you can access the system. Now, to overcome those challenges, we started to embark on the process of upgrade. We start a conversation with the manufacturer, how we could upgrade. Another problem emerged, that if we were supposed to upgrade, we also needed to upgrade hardware, because the hardware which we procured in 1998, at that time, in 2004, couldn't accommodate the innovation of the web technology. So before upgrading, we started to procure new hardware. Now, we used another one here to procure the hardware. I think now we have the new hardware, and the -- that took us up to 2005. And in 2005, now we started to think again about the upgrade. We have the new hardware; now we want to upgrade.*

When we got back to the manufacturer, that version which we were intending to go for was already obsolete. So we are supposed to go to the higher version again, version 9. Because when we procured it in 1998, it was version 7. The version which we intended to go in 1994 was version 8. Now, in 1995 -- in 2005 - - sorry, I repeat there. The version which we procured in 1998 was version 7, the version which we intended to go in 2004 was version 8, now, in 2005, version 9 had already come in. Now, we are supposed -- we need to think again, to go to version 9. So the decision was it's now better to do a review, to make sure that we accommodated all that the user requirements, even before going -- embarking on the upgrade. Now, we engaged a consultant to review, in order to make sure that we accommodated all the user requirements before we embark on upgrade, because there was no point to why we should now move very fast, because all the initiatives which were prepared for version 8, we have to prepare again for version 9. We engaged a consultant. It was then end of 2005, 2006. They produced a report -- a very good report - that we could use as a tool now to move to version 9. Unfortunately, before even using that report, it was the end of the Public Service Reform, Phase I, which ended last year. So the co-financer of this system was Public Service Reform Program. So we had to wait to include our requirement in the Public Service Reform II, which just started at the beginning of this year. So we stopped everything, we continued with the oldest version which we had, to make sure that we put our requirements in our Public Service Reform II, which started this year. In order to execute the upgrade, we put it, and now we are in the process of upgrading to version 9.

Now, what the benefits we'll get in version 9? There are many benefits. Version 9 is more user-friendly. It will be very simple to be adopted in MDAs, because it uses the same technology as the technology which was used in Internet Explorer. Most of the government employees are already experiencing the Internet Explorer, so it will be very simple to use. That's one. Secondly, it can allow multiple access to the payroll and to the HR. Because in the old version, we used to get problem. When processing payroll, you cannot perform input on the HR side. Now, version 9 will rectify that. Version 9 is very simple to roll out because it uses web technology, so now it will be very simple to roll out to other ministries as quick as possible. Another advantage with version 9 is it will help the government to implement some of the HR functionalities that were not possible to implement on the other version. For example, position management is now very simple to implement in version 9. We can implement approved web flow, that if a decision is from this level, it has to be approved by the second level. You can use the system to do that; that is very simple. Version 9 will provide a very good reporting tool that even the normal user with a very limited knowledge of IT can access the system and produce reports on the human resource. And it has a very good linkage with other government systems, like our financial system, monitoring and evaluation, and so on. Yeah, that is on the human resource management information system.

SCHALKWYK: All right, so what -- so, if I can ask you some questions about the payroll... What were the problems with the payroll system before you implemented the computerized...?

KIWANGO: *Before we implemented the computerized system... Maybe I'll give you the very short background on how the management of the payroll and the human resources. Management of human resource is within the president's office. Operation of the payroll is within the Ministry of Finance. Now, before implementing the system, Ministry of Finance legal system on payroll. I think it was procured in early 1980s. That system has very limited features. It can only just hold check number, employee number, the pay station, the amount to be paid, deductions to be paid -- to be collected or deducted -- and the allowances to be paid. That's all. It's very difficult to know whom you are paying, very difficult to know where it's paid. Because it had a very limited HR information to know precisely who or whom this salary I'm paying to. In the sight of public service management, there was no computerized human resource. Despite many initiatives to develop simple Microsoft Access Database, it was very difficult to link between what the Ministry of Finance had in the payroll and what public service had, in terms of human resource, employees. Now, the problem -- what was the consequence of that? The consequence of that was that there are many employees who are being paid who had already terminated, maybe, who are not in the service at that time, and at the same time, there are employees who are not being paid, but they are in the service, because they are not in the payroll. So what we did, when we procured the Lawson system, was we started by what the Ministry of Finance had and what the President's Office had. We tried to find an intersection. Who are on the payroll, who are the simple access database within the President's Office. That intersection was the first employees to be entered in the system, because they're in both. Now, there are other employees who are in the payroll side that are not in the HR side. We had to do audits to... We printed the form -- we called it our employee form -- using that information which we had in the payroll, and then we send them to the employers to validate. Is this employee still in the service? We had some employees who were in the President's Office but were not in the payroll. We did the same. We print that form and sent it to the employers to countercheck. After counterchecking, we started entering them into the new system. Now, the*

outcome was to eliminate the ghost workers. And we -- I don't remember the number, but there were many ghost workers at that time who were eliminated from the system.

SCHALKWYK: When you chose the Lawson -- Lawson -- L-A-W-S-O-N?

KIWANGO: Yes, yes.

SCHALKWYK: OK. What was -- what were the -- what criteria did you use to choose that system?

KIWANGO: *What we did, we used the normal procurement regulations. And at that time, we were financed by the DFID, so what we did, we procured it through procurement agent. It was called Charles Kendall. Is the -- I think is the United Kingdom's best company. We established them as a reference, we advertised a tender. Many companies responded for that tender. I remember, it was about thirteen to 15 companies responded. And one of the responsibilities within the tender was if it's an international company, you have to bid with your local partner. You know? Because that was to ensure we get the internal support, in case -- if it is international company. We evaluated the tender, basically on the terms of reference which we issued, and I remember at that time, the five major HRM and HRMIS -- Human Resource Management Information System -- companies that offered products were on top. The first one was PeopleSoft. I think even at the moment, PeopleSoft is very huge. The second one was Lawson. The third one was Oracle, before merging with PeopleSoft, I think. The fourth one, I don't remember. I remember the five -- the five top. Now, Lawson was second; PeopleSoft was first, on the technical perspective. Now, the second evaluation was on the price. PeopleSoft was very high; Lawson was within the budget, so we opted for the second. But in terms of overall evaluation, PeopleSoft was the first; Lawson was the second.*

SCHALKWYK: And what were those terms of reference? What makes a good -- what made it a good HRMIS system for Tanzania? What sort of characteristics did it have, and what could it do that you wanted it to do?

KIWANGO: *In order to get the terms of reference that are --that suit the Human Resource Information System for Tanzania. What we did, I think we conducted several workshops that included all the ministries. When I say the ministries, I mean the Permanent Secretaries and the Director of Personnel Administrations. We conducted several workshops to exactly -- took their views and requirements of what they need in terms of computerization of the human resource. After that workshop -- it was not one; it was many workshops -- we enumerated down what they want computer to do for them, we put it in the standard terms of reference and what was issued to the -- for advertisement. When we got Lawson, the first thing before implementation, we again organized the workshops that included all the Permanent Secretaries and the Director of Personnel Administrations. Lawson demonstrated the product in order to countercheck that what they requested in the terms of reference as their requirement will be met by Lawson. We did that, and after that, we started implementation.*

SCHALKWYK: So --

KIWANGO: *Now, the -- maybe through -- to put into summary, good terms of reference comes from the users -- user needs. And we used that methodology through workshops to make sure that we collected all their requirements.*

SCHALKWYK: And so what were those requirements? I'm trying to work out what did the ministries want? What did they -- what uses did they request?

KIWANGO: *OK, OK, OK. Maybe there are many, but I'll put it maybe in general. (laughs) In general. One was to have correct HR information for their employees. And that means when they want to make a decision, they wanted a tool to help them get that information as quickest as possible with highest level of accuracy. That was one. Secondly was to help them, in terms of establishing the -- because each year, they used to establish HR budget for their employees. Now, what they wanted was a tool that will help them to know exactly, I have this actual number of employees. I require this -- as a department or ministry: we want this, we have this, we'll acquire this. And this was a very key on the position management. Unfortunately, we couldn't implement it in the first place.*

SCHALKWYK: Why not?

KIWANGO: *I will say it was because of capacity in terms of the government and the local vender. Because we had a contractor problem. Maybe I'll go back again to explain it. The implementation of the Lawson was carried out by the Lawson Africa -- they had a branch in South Africa -- and the local partner is a company called Cats Tanzania. Now, after one year of implementation, the Lawson South Africa moved out the responsibility to Cats Tanzania because they trained Cats with the aim that they would continue with implementation. Now, at the same time, Cats was supposed to train GoT counterpart -- the counterpart GoT -- to have a very strong and sustainable GoT. Unfortunately, most of the trained personnel in Cats left the country and went to work for the Lawson in Canada. On the GoT side, we had three -- we had a team of six technical staff, and three left. So we left -- no, four left. We left with two. At the same time, the capacity of Cats was very low, so now, who will implement position management? So we felt -- and the solution was to train GoT team again and Cats on implementation. And that training, maybe, would be required to be undertaken by Lawson itself. But we faced another challenge, that because Lawson had already gone to version 9, and they were -- the process of coming out with version 9, so there was no point why should you train at version 7. So it's better you wait until -- train at version 9. So we say yes, we'll wait. So you see, most of -- for example, position management was supposed to be implemented, version 7; we said we implemented version 9. Yeah, that was a problem.*

SCHALKWYK: All right, so how have you gone about attracting --

KIWANGO: *Contractor?*

SCHALKWYK: -- attracting skilled people into your office?

KIWANGO: *Implementation of version 9, we have developed a plan -- implementation plan. First, we have reviewed all the contracts. Because from the review which we did in 2006, one of the recommendations was to review all the contracts, because there are many loopholes in the contracts, which were signed in 1998. So we reviewed all the contracts, and one of the bullet points within the new contract is capacity-building to GoT, and that capacity should be provided by Lawson itself, not the local partner. Now, in the implementation plan, we have indicated a very intensive training on the technical staff and a very intensive training on the business staff and the variety of trainings to their users, to make sure that GoT will operate with Lawson without even depending on the local vendors. Yeah, because we have experience with implementation of phase I; now we have rectified it, especially on the capacity-building.*

SCHALKWYK: OK. And why did the people in your office leave?

KIWANGO: *One was -- looking for green pasture. And the second, there was a problem with -- the problem occurred at the Ministry of Finance, there was a forgery in the -- some of the payments. So they still under the court. So we had then one left because of looking for green pasture, and another because of that problem. Yeah. (laughs)*

SCHALKWYK: All right. So to go back to the terms of reference you talked about, easily accessible information, HR information, and position information. What else were they -- were the ministries looking for?

KIWANGO: *If I can put it maybe in general, in the ministries, they have manual ways of working. Each employee has a file, and that file is full of his information. Now, for management, to make a decision, decision has to seek advice from one, two, three, or even four sources. Before you reach your decision, you have to make sure you have consulted one, two, three, four, and five. Now, with the larger volume of files and with many areas which you need to consult, it takes time to make a decision. At the same time, in the organization, things are changing very quickly. Now, today I'm here; tomorrow, I can be at the Ministry of Agriculture. Now, to make sure that in the manual process, my information is not reflecting -- is no more reflecting public services, now reflecting agriculture, it takes time in the government. A very good example is if you are transferred, for example, to the local government -- to the local government authorities, to the remote area. It used to take even six months before being paid, because -- or you are paid, but you are paid in the old station, because your information is still in the old station; it is not in the new station. Now, in the MDAs, the management was looking for a tool to address that. They needed accurate information at right time, that if I want to access employee's file, I can get it electronically with up-to-date information. They wanted an HR decision which they make to take -- to be into effect as soon as possible. They wanted, before they make decision -- HR decision -- to get informed HR information -- accurate, timely, and at the right time. So if you take the HR process in totality, they wanted it to be accurate, up-to-date, for them to decide.*

SCHALKWYK: I wonder if you could talk a bit about e-Government.

KIWANGO: Yes, yes.

SCHALKWYK: Could you describe the e-Government program a little bit?

KIWANGO: *Yes. On the e-Government side, as I said, this ministry was given mandate to formulate and implement e-Government policy. Now, under that process, we started by defining what is e-Government in our context. From that definition, we established that e-Government is about delivering quality service to the public timely, efficiently, and effectively. When we go to the Public Service Reform Program, it is about increasing efficient in service delivery and in the management of the public service. Now, in the Public Service Reform, we have a -- we have to reform the systems. We have to introduce management systems and so on. When you put a system, when you are restructuring, when you put OPRAS, when you put this client service charter and so on, still IT can be applied as a tool to make those things to happen even more quicker than if you do it manually. There is no way you can apply IT without restructuring the business process. You cannot put -- take IT and put it on the top of the processes and say you are improving. You have to improve the processes; then you put the IT.*

Now, the same applies to what we are thinking on a government. We have the Public Service Reform Program. The Public Service Reform Program ensures that efficient systems are there to deliver public service, to manage the public service. Now, what we are doing? We are putting IT on top to make even much faster. So to do that, we have many things which we plan to do.

The first thing -- the first one is to have a e-Government infrastructure, because you can say that if you want to give -- deliver service electronically, services are not coming from single institution. From me as a citizen, it doesn't matter to know this service is coming from public service, it's coming from Ministry of Finance, it's coming from Ministry of -- what I want is the service. So it's up to the government to make sure that things are integrated at the back end. Now, in order to do that, we need to have a unified infrastructure. So one of the initiatives is to implement e-Government infrastructure. OK, you implement e-Government infrastructure. Now, what is the strategy you are using to implement the infrastructure? To address that, we are developing e-Government strategy that will be adopted by each Ministry to ensure that things are implemented in a committed manner, there is no duplication, there are standards which we need to follow in order to implement e-Government. So another initiative is to develop and implement e-Government strategy. We have an infrastructure, we have a strategy. Now, users need to get the interface where they will get the service. To address that, we are now developing something we call e-Government portal. That portal will interconnect all the government websites to the one window for citizens to access the government service.

In order to make all those things happen, we have to develop the HR capacity. So we are trying as much as we can to train the technical staff, to train the government employees on the use of ICT, and at the same time, we are trying as much to create awareness campaign to the employees, to the citizen, on the benefits of e-Government, and how they can use technology to access government services. We are at the beginning. We are not so far, but we are sure that with a good strategy, with good capacity, we will move, we will move.

SCHALKWYK: I want to ask about capacity and familiarity with computers. Presumably many people in the civil service didn't -- weren't familiar with computers back when you first implemented the information management systems. What did you do to train people?

KIWANGO: *OK. On the capacity-building, we addressed it very much in the Public Service Reform, especially in the Public Service Reform, Phase I, where I think we trained about 3,000 government employees on the ICT. So we have programs. The first program is on the building capacity of the technical staff, in order to manage the IT systems in the government. We trained a lot, and we trained them both internally and outside the country, on the computer databases, computer hardware, computer networks, programming, and so on. At the same time, we provided local basic training to many public servants on the basic use of ICT. And we trained a lot on the -- on some of computer programs, especially on the Microsoft Office, and use of Internet and e-mail. Also, we -- I can say is -- maybe is awareness, not merely training for the top management. We had a program for the ministers, we had a program for Permanent Secretaries, Original Commissioners, and even District Commissioners on the ICT. What advantage the government can get on the using of ICT. We had those programs, and they - - and the Public Service Reform I, and we also included them with Public Service Reform II. Now, maybe the only difference between the Public Service Reform I and II is in Public Service Reform II, we have tried to push everything to the MDAs. Now, they have to decide themselves what type of computer training they need, what the programs they need, what systems that they need, but with guidelines or standards from the public service management. So training, we are*

doing as a continuous activity and will continue to train as much as we can, especially on the key government systems, like human resource management information system, like the financial management information system, and so on. So we are keeping on training them, at the same time, providing awareness campaigns. In the Public Service Reform, we have a very good awareness campaign, and the -- we have a unity for information education. So we're used to pushing our programs. In order for the citizens, the public, doesn't understand what is e-Government, and how e-Government will help them. Yeah.

SCHALKWYK: How did you deal with infrastructure constraints when getting the systems out into the rural areas?

KIWANGO: *At the moment, I can say we still have a lot of duplications in terms of infrastructure. We have too many types of infrastructure we want to establish. The first one is under the Ministry of Communication, which is responsible for the ICT nationwide. Then we have one other infrastructure for the government that will be unified, and a secure infrastructure for the government institutions, which will be under this ministry. Now, for the nationwide infrastructure, we're still at the procurement stage. For the government infrastructure, we're still at the beginning. We have interconnected only seven ministries. Now, ministries cannot wait until the infrastructure is totally completed. They have systems; they need to share the systems with other institutions, for example, the financial management, that run up to the level five district level. The human resource -- we are going to the ministries already. There are many. We have Internet services. Each ministry has Internet service, and so on. So each ministry had their own initiative in terms of infrastructure, to make sure that what they have, it is running. Under the strategy which we are now developing is we have recognized the efforts which are already in place in terms of infrastructure. And the strategy, saying, as the government now continue to implement the government infrastructure, we have to recognize the existing infrastructure if we can utilize them, or, if not needed, they will be removed and replaced by the government infrastructure. You know the problem with funds? It's very difficult to get funds to link all the government for one year or two years. We have a problem of capacity. Still we need to train more people, in terms of security and so on. So it's a long process, (phone rings) and it's likely that they've given five years to complete, to have the government infrastructure.*

SCHALKWYK: How successful has it been so far, the human resources management?

KIWANGO: *In the human resource management system?*

SCHALKWYK: Yeah.

KIWANGO: *I can say on the payroll, we succeeded a lot with the [redacted] workers. Now the payroll can be processed in the new system efficiently. In the past, we used to -- they used to process payroll for I think -- they could even use more than three weeks to process payroll. Now, payroll processing can take just one week. Printing of payroll used to take two weeks; now we can print in three days. On the HR side, we have a lot of reports, which we can use with the limited information, which we have at the moment. If you go to the section of the establishment, the system is there. Every file they get, they have to make refers to the system. So they depend a lot on the system. On the decision-making, the management's now more informed compared to where -- we know the system, and we are sure we will get more benefits when we fully implement version 9.*

SCHALKWYK: Do you use other technologies, like cell phones?

KIWANGO: *At the moment, no, but if you go to the government agencies like -- what's it called? -- the one which is responsible for supplying of water. They use mobile phones.*

SCHALKWYK: How do they use them?

KIWANGO: *They use them to notify their customers that your bill -- your bill -- you have to go in and pay your bill, and the month showing you are supposed to go in and pay. We have the Ministry of Lands (and Human Settlement and Development). They brought a request to us -- they requested funds from the Public Service Reform. They want to implement a mobile notification system to their customers, for example, your title deed is ready; you can come and collect it. Maybe you have this bill you need to set up on your land] and so on. So Ministry of Lands they want to implement it.*

SCHALKWYK: This would be by text message -- SMS?

KIWANGO: *Yeah, SMS. And a good thing with HR and version 9 which we are now implementing is it has that facility. It can send to you that -- go and collect your salary. It can tell you that you have something in your e-mail box which you need to give decision. It can tell you that your leave is now ready; you can go. That facility is there, for Lawson version 9, which we are now implementing. Yeah.*

SCHALKWYK: What advice would you give to other countries, similar to Tanzania trying to implement ICT systems?

KIWANGO: *Yes, the experience sharing. We have two types of experience sharing. Most of the huge ICT systems which we are installing in Tanzania, we used to procure them outside the country. Now, most of times, the companies which install them, there are sometimes they can invite the government employees to go there and maybe see the sites where they have already installed. For example, for Lawson, we went to America, and the state of Michigan operates on Lawson version 9. So we went there, we see how they operate, we satisfied ourselves that when we go back, we can implement it at this level. There are other types of experience sharing from the government itself -- the foreign governments. We can make application to the -- if we identify that -- for example, the government of Egypt operate on this. We normally write a formal request that we would like to come and learn how you do this. They invite us, and we go there. So we learn. Especially if we want to implement a system that is already operating in another country. And we mostly prefer the countries which have a similar context to Tanzania, especially the African countries or the Asian, the Far East countries, which were developing and are now going to develop the countries. It's very difficult to share with America or Canada, because they are far from us, and it's -- like you want to bypass some steps and go there. (laughs) So it's very nice to go to the countries which are similar to us.*

SCHALKWYK: And if you were writing a manual, giving advice to somebody in your position in another country, what would you include in that manual?

KIWANGO: *Challenges. Mostly -- instead of the success stories, I write mostly on the challenges which you... For example, let's say the government of Kenya wanted to implement Lawson. I'd mostly write on the challenges we are facing to get Lawson running. So it's good to write success stories, but success stories come from how you attack the challenges.*

SCHALKWYK: So what would the three major challenges be?

KIWANGO: *One, especially in the government, is to -- governments has many stakeholders, and the stakeholders have different perspectives. One is how to bring all the stakeholders together to understand what you want to do. That's a very big challenge to me, and I would most like to share it with other people. The second one is on how to manage the contractors or vendors. From my experience in the government, most of the projects that fail do so because of the mismanagement of the contracts. So I have a very good lesson on the management of vendors, especially on the contract side.*

SCHALKWYK: So what sort of advice would you give them?

KIWANGO: *On the management of vendors?*

SCHALKWYK: Yeah.

KIWANGO: *First of all, clear terms of reference. You have to understand the terms of reference; vendor has to understand the terms of reference. You have to have one understanding. Second, clear milestones, and each milestones, you have to sign. Before paying, you have to sign. And maybe third is on the capacity. They have to make sure that they build my capacity, because my experience is vendors, they always prefer to stay with you. You pay them, you pay them, you pay them -- they do not go. So if there are clear milestones, project sign-off is this, my capacity has to be ready to take it; otherwise, we will be spending a lot of monies, pay vendors, but no impact. So one is on the bring together stakeholders, secondly is on the management of stakeholders, and three, on the capacity-building. Very important. Technology cannot work without the other side of the human resource. I have to build my human resource to make sure that they can operate the technology and they like to use the technology.*

SCHALKWYK: Thank you very much. Is there anything else you'd like to add before you go?

KIWANGO: *Maybe. I had -- before I come here, I had one experience working in the private sector. My -- most of my experience is with the public service. What I used to see in the public service as a big challenge compared to the private. Because I used to work as a private sector through -- as vendors. They used to work with me as vendors. Now, if you want to implement system in the public service, you have to involve the stakeholders. That's a very big lesson I learned, and different with the private sector, because in the private sector, as a managing director, you can say, "I want this to happen," and tomorrow, they will see it. But then in the public sector, it's not like that. You have to involve stakeholders; you have to have consensus, you have to consult a lot in order to make things to happen.*

SCHALKWYK: Thank you very much.

KIWANGO: *Thanks.*