



## Transcript of ColdChainIQ Interview of Taha Yaycı

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**Andrea Charles:** Hello and welcome to this ColdChainIQ podcast and I'm your host, Andrea Charles, Editor for ColdChainIQ. [www.coldchainiq.com](http://www.coldchainiq.com).

Today, I'm joined by Taha Yayci, the owner of TechN'arts and will be representing The Republic of Turkey Ministry of Health at the 11<sup>th</sup> Cold Chain & Temperature Management Summit taking place in Canada from the 25<sup>th</sup> to the 28<sup>th</sup> of February in next year.

Taha, if you could outline your current role and responsibilities please.

**Taha Yayci:** My name is Taha Yayci. I'm in fact a software developer myself and I own the company TechN'arts. It is also known as Nart Informatics. We are developing tailor-made solutions for the industry, particular for the pharmaceutical industry. We are working with Ministry of Health of Turkey and we develop a system named İTS which is the abbreviation of "İlaç Takip Sistemi" and word by word translation is Pharmaceutical Track & Trace System. We track & trace all pharmaceutical units individually by using our central management software and all our stakeholders are notifying us about every action that is taken on every single drug unit. On behalf of the Ministry of Health, also I am attending some conferences, seminars and telling about our story and our experiences.

**Andrea Charles:** How that the ministry and your servers deal with such a huge amount of data since you are tracking every single shipment.

**Taha Yayci:** It is in fact we are using database, data repository, central data repository and we are using web services for our stakeholders to use. They use these web services to notify us about every action and we have a data center and terabyte of disk spaces and we are using technological things to manage such a data and also we are developing a decision support system, simply a reporting service for the Ministry of Health to control the industry.

**Andrea Charles:** What was some of the challenges that the Turkish Ministry of Health wanted to overcome?

**Taha Yayci:** The first aim of the project was to guarantee reliable supply of the drugs to the patients. And also we have to decide whether a drug is genuine or not. At the first stage our aim was the public health and the second aim was, maybe not in other countries but in Turkey we have a great reimbursement association owned by the government. About 87 % of the drugs are paid by the government, so the second objective was to prevent the barcode scams (i.e. some people take the information of the patients and organizes as a criminal organization including doctors, pharmacist and also manufacturers sometimes. They write to the Reimbursement Company and they say that they are sold but in fact they are not. They get the cost of the drug from the Reimbursement Company but in fact they didn't really sell that drug. We prevent that.) The second objective was to prevent such actions but we had some challenges. For example, convincing the manufacturers was our first challenge because the manufacturer should invest on their product lines and also invest on their software management system. It means cost for them so we made a lot of meetings with manufacturers, the manufacturer associations and we convince them by saying the system is also beneficial for them, because they are losing money from this counterfeiting and barcode scams. After convincing the manufacturers we also made a lot of meetings with the pharmacies and pharmacy associations. We changed their way of doing their job. Formerly, they were cutting the barcodes to

prove that this sell is done, but after our project they aren't now cutting any barcodes to prove anything to the Reimbursement Company, because we have the data and we have web services for the reimbursement association to query if this sale is really done or not.

Therefore, first challenge was convincing the industry then also convincing the politicians was another challenge. We made our regulations first ready for the industry then made these regulations to the parliament and they approved these regulations. Then, we started the project, but at the end we not just achieved our first objectives, also we achieved a lot of things. For example, we are now controlling complex recalls and also we can control the returns. Moreover, we have a valuable data. We can use it to estimate the outcomes of the industry and to make the industry work efficiently.

**Andrea Charles:** You talked about challenges you faced working on this project. What lessons did you learn?

**Taha Yayci:** The biggest lesson that we have learned is that it is not impossible. When we started this project a lot of people said us that it is a huge data, it is not controllable, it is a huge industry, it is not convictable, it is a big thing to change so everybody will resist to the change and you will not succeed to apply this project, but the lesson we have learned is that it is not as half as it is said. The full track & trace, I mean not for just the manufacturer and the pharmacy, also for every stakeholder who takes the drugs, who sells the drugs, who consumes the drugs is involved in the project. Such a project is not as hard as it is said to be. The lesson learned is that this project not just earns money for the government and also improves the quality of service to the patients. And also the cost is not a thing that should be afraid of, because it can be gained by the industry or the government in just days. So, the return on investment of the project is first they said us in years, but it is in fact in days.

**Andrea Charles:** And if you put an estimate on the cost of counterfeit?

**Taha Yayci:** The cost of the counterfeiting in Turkey cannot be decided absolutely, but it is estimated as to our statistics association that we have total cost of counterfeiting, drug theft and barcode scams, and smuggling. The total cost of these four things is about 1 billion dollars annually in Turkey. But, the system prevented all four of these even the drug theft, because in full track & trace you cannot sell theft drugs to anybody else other than the owner of that drug. So, there is no need to steal a drug from anybody, you cannot sell it.

We can absolutely say that we have a cost benefit of about one billion in a year.

**Andrea Charles:** Well, it is a grate saving. Do you feel that the counterfeiting themselves is becoming more sophisticated?

**Taha Yayci:** Yes of course, it is a good question, because the counterfeiting in Turkey is not even one percent now. But, the counterfeiters are now using sophisticated techniques to sell these drugs to abroad. For example, they produce the drugs in Turkey also, but they cannot sell in Turkey. They just get the drugs outside of Turkey. For example, to England, to US, to Syria or to Iran and sell them there.

Moreover, Phase-I of our project, it was about one year ago, the system was not full track & trace. In Phase-I, it was just mandatory for the manufacturers and the pharmacies but the wholesaler was not included. At that time they use technology to find Phase-I product to sell it to anybody else that

belongs to anybody else. But, we turned our system from Phase-I to Phase-II and we prevented all counterfeit. Now it can be done, also the counterfeit can be done in Turkey. But, it can be done by gathering, combining manufacturer, wholesaler, pharmacy, doctor and one government officer. Just such an organization can do a counterfeiting. Our system makes this counterfeiting industry as high risk but low profit sector. Before our system, it was high profit, low risk sector, but we've changed it to high risk, low profit sector. So, the counterfeiter thought that it has a high risk, low profit, so they changed their industry from pharmacy to tobacco sector in Turkey or to food supplement. You cannot prevent anybody to take a counterfeited drug if he/she wants to buy one. So, you have to develop a code for the brains of people. We cannot prevent the people who want to buy counterfeited drug with their own willing. However, we have projects about improving systems and solutions for that also. For example cash buys and sells without reimbursement companies. We now have a working system and time to wasting it on such sophisticated organizations.

**Andrea Charles:** I know you are going to be at the conference representing the Ministry of Health but what are you actually looking forward to at the conference?

**Taha Yayıcı:** The networking is very important for me, because I didn't want to get any information since it is already implemented in Turkey, but I want to share my experiences and my government's experiences with the other governments and to speak, to tell the manufacturers that it is not a thing that should be afraid of. So conference is a place for me to tell my experience and to tell my story to high level audience if they want to ask me something, to give my business card maybe, to help other countries.

**Andrea Charles:** Taha, it's been a great pleasure to speak with you and thank you for updating us on Turkey's Pharmaceutical Tracking System.

For anyone interested in attending the event, the event will be taken place from the 25<sup>th</sup> to the 28<sup>th</sup> of February in Toronto, CANADA. And you can find that more about the event by visiting [www.coldchainiq.com](http://www.coldchainiq.com).