Mansoor Hamayun Redefines What A Next-Generation Energy Company Looks Like

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In March 2019, the World Bank released its <u>Electricity Access in sub-Saharan Africa</u> report. It measures the status quo of access to electricity, compares the nuances of regional and country variations in access to electricity, and identifies some root impediments to increasing access to electricity in the sub-Sahara.

The results were telling. More than 600 million people lack electricity in the region.

No access to electricity primarily constrains modern economic activities, provision of public services and quality of life. In addition, it severely limits adoption of emerging technologies in sectors such as banking, education, agriculture and finance that could otherwise alleviate some of the core challenges facing Africans, such as low productive employment opportunities and limited health care.

For YPO member Mansoor Hamayun, these challenges are fuel for his passion to find a solution to a fundamental need.

In 2008, this crisis first caught the attention of Hamayun, who, along with two of his university buddies Chris and Laurent, stumbled upon the daunting statistics while electrical engineering students at Imperial College in London.

"The fact that one third of mankind does not have electricity really started bothering me, like why do so many people around the world not have electricity while in that same year the iPhone was being marketed and sold," he says. "So, there's a large proportion of mankind that does not even have access to this digital revolution that is taking place."

Growing up in Pakistan, Hamayun traveled a fair amount in the developing world and saw first-hand the need for a reliable source of electricity. With no access to power through the grid, many Africans are forced to end their working days when dark falls or rely on harmful kerosene for basic tasks such as cooking and lighting.

"I began to see the issue as a moral injustice. So many lives could be transformed when people go from darkness to electricity," he explains. "I became so intrigued that I wanted to seek a fundamental solution. It's a transformative impact that can happen over such a short period of time."

Watch Video At: https://youtu.be/DTeFSJqiM_c

Turning the switch on

With grid access across the continent scarce, it was clear that a mobile, reliable and clean source of power was needed and the answer was solar. In his third year of university, Hamayun set up a university charity, e.quinox. "Through this, we hand-made portable solar battery boxes and sent them to rural communities in Uganda."

Hamayun and his partners managed to bring electricity to 800 people through e.quinox. However, the demand for their products was huge, and much greater than they could keep up with through the charity model.

So in 2010, with an initial GBP40,000 they had saved up, the trio of friends co-founded BBOXX aiming to give millions in sub-Saharan Africa access to reliable, clean energy by developing and distributing solar home systems, which harness the sun to create electricity.

"We got lucky because the cost of solar panels and batteries started dropping rapidly and mobile money, the ability to pay digitally using mobile phones, also started becoming very widespread across the developing world particularly in east Africa," says Hamayun.

With IoT and big data burgeoning, BBOXX was able to offer their customers the ability to install solar panels at each household as well as efficient storage and appliances. Each device was connected to the cloud and customers could pay using mobile money.

At the same time, Hamayun was able to create a digital connection with his customers to actually understand not only what their needs were, but to predict problems before they actually occurred. BBOXX saw a digitalized and decentralized solution coming together.

"The ability to package this whole thing together in a pay-as-you-go model was quite exciting because immediately the customer could go from having no electricity to full power and all at the same price point as they were spending on batteries, kerosene, candles and diesel for generators."

These initial efforts brought green energy to nearly one million people in the developing world.

"One third of mankind did not have electricity in the same year the iPhone hit the market...a large proportion of the global population doesn't have access to the digital revolution taking place." Mansoor Hamayun, Co-Founder BBOXX

Profit scales impact

At the core of his business plan to solving the energy delivery problem is profit. "If it's not profitable, it's not scalable. And if it's not scalable, we will never solve the problem."

Hamayun also tries to make sure that the solution is affordable and value additive to customers.

"That means that you have to actually drive a business with an extreme discipline. This is where technology is really cool because when people think about technology, they don't actually think about that as a solution to solve poverty but merely to make a profit."

For Hamayun, technology is a fancy word for efficiency. And if your business is efficient, that's how you can actually provide very cost-effective services to the population while at the same time creating profit.

Off the grid

Energy has been a very incumbent, traditionalist market that is state controlled. The aspect of private enterprise in the energy market is a relatively new practice.

"Technologies have leap-frogged current policies. And the reality for the near future is that the cost of cable is going to become higher than the cost of storage. The moment that happens, the entire wall is going to be distributed, decentralized and go digital," says Hamayun. "It just happens to be the case in the developing world today. It's already cheaper to have your own storage and generation without needing cables anymore."

This is the case for a larger proportion of the total energy consumption he explains. The way providers are going to have to look at energy in the future has to do with the distribution mix: coal versus wind versus nuclear energy. Providers will have to pay attention to how many customers will be grid connected, hybrids, or decentralized.

"This is what is creating excitement in the energy sector," he says. "A lot of innovation is happening of this sort and this aggregation of vertically integrated traditional business models."

The bright spot

One of Hamayun's key learning since his days as an engineering student is viewing what he does as not just developing and distributing a product but creating an ecosystem.

"I think sometimes people have a simplistic way of thinking of a product, an iPhone or a computer or this or that. But if you want to actually create something scalable, you need to think of it as an ecosystem."

Fundamentally, the reason Hamayun started BBOXX was because he saw a moral injustice. Recently he conducted a survey with his team based on the United Nations' Sustainable Development Goals, and was surprised his team met seven of the 17 goals.

"Electricity is the blood of the modern economy. Energy access is the starting point not only to solve poverty but improve education, health care and job growth," he says.

BBOXX has installed 200,000 smart solar home systems, powering homes and businesses, and is installing some 500 new buildings every day with electricity and they are doing that in 12 countries.

"It's a big number for a small company, but it's still a very small number compared to the size of the problem ahead of us. We have billions of people to still electrify."