



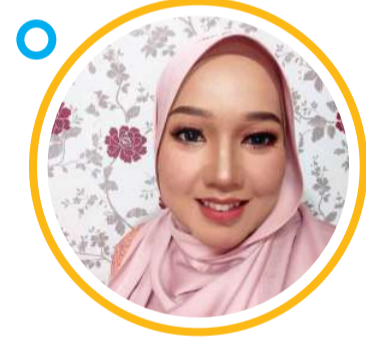
Moving a business online is challenging but help is always at hand, says Fatimah. — FATIMAH HAMID



Vani says a career in tech gives women the flexibility of working from home. — MUHAMAD SHAHRIL ROSLI/The Star



Esmerelda Marie built an app to make data entry easier. — ESMERELDA MARIE MAJAHAM



Nordiana says it takes hard work and proper planning to make it as a successful online businesswoman. — NORDIANA ABDUL WAHID

daughter who was not only excited to see her mother pursue a course in coding but also gave an idea for an app.

“When I volunteered at a private learning centre to help with administrative duties, she said I always complained about how difficult it was to key in the students’ grades. She asked me to create an app to make the process easier,” she said.

Najwa Alia, who is planning to enter a hackathon with her former classmates, is now using the app to make her data entry work much faster.

For most, it’s about facing a new and unfamiliar world, said Fatimah, as she had to convince the female traders in the NGO to adapt with technology or risk being left behind.

“I remember them saying they were scared, as they may not understand how a service or app works. They were worried something would go wrong when they went online.

“I told them they needed to be brave and we will face the challenges as we have always done – by helping each other.”

LAUREN Foundos has excelled at just about everything she has put her mind to, from college sports and Wall Street trading to her Forte startup that takes workouts online.

Being a woman in the overwhelmingly male world of venture capital was still a barrier – but, like many other female entrepreneurs, she only worked harder to succeed.

“In some cases, before I even spoke, they were asking me if I would step down as chief executive,” Foundos said of encounters with venture capitalists.

“This was a whole new level.” Men would speak past her in meetings, discussing whether she could emotionally handle the job as if she wasn’t there, or wondering out loud who would take care of the books.

“When that happens, I tell them I am right here,” Foundos said. “I am the finance guy; I worked at big banks for more than 10 years. I’ve been the best at everything I have ever gone into.”

Startups can only get by so long relying on friends, family or savings before eventually needing to find investors willing to put money into young companies in exchange for a stake in the business.

Money invested in startups in their earliest days, perhaps when they are no more than ideas or prototypes, is called “seed” funding.

When it comes to getting backing for a startup it is about trust, and that seems to be lacking when it comes to women entrepreneurs, according to Foundos and others.

“I don’t think women need to be given things,” Foundos said of venture capital backing.

“But I think they are not seeing the same amount of deals.”

Forte has grown quickly as the pandemic has gyms and fitness centres scrambling to provide online sessions for members.

Foundos brought on a “right-hand man”, a male partner with a British accent, to provide a more traditional face to potential investors and increase the odds of getting funding.

She has taken to asking venture capitalists she meets if they have invested in women-led companies before, and the answer has always been “no”.

Sex for funding?

A paltry few percent of venture capital money goes to female-led

Women fight for funding



While last year set a record for venture capital funding, backing for women-led startups plunged. — AFP



Some 44% of women founders surveyed told of harassment such as sexual slurs or unwanted physical contact while seeking funding, according to Kapin’s WWT. — AFP

startups in the United States, according to Allyson Kapin, general partner at the W Fund and founder of Women Who Tech (WWT).

Being sexually propositioned in return for funding, or even an introduction to venture capitalists, is common for women founders of startups, according to a recent WWT survey.

Some 44% of female founders surveyed told of harassment such as sexual slurs or unwanted physical contact while seeking funding.

And while last year set a record for venture capital funding, backing for women-led startups plunged despite data that such companies actually deliver better return-on-investment, according to Kapin.

“This isn’t about altruism or charity, this is about making a (load) of money,” Kapin said of backing women-led startups.

Bar set higher

Prospects for funding get even more dismal for women of colour.

Black entrepreneur Fonta Gilliam worked overseas with financial institutions for the US State Department before creating social banking startup Invest Sou Sou.

Gilliam took the idea of village savings circles she had seen thrive in places such as Africa and built it into a free mobile app, adding artificial intelligence and partnering with financial institutions.

She created a Sou Sou prototype and started bringing in revenue to show it could make money, but still found it tougher to get funding than male peers.

“We always have to over-perform and overcompensate,” Gilliam said.

“Where startups run by men would get believed, we’d have to prove it 10 times over.”

Gilliam got insultingly low valuations for her startup, some so predatory that she walked away.

“We are still lean and mean bootstrapping, but I think it is going to pay off in the end,” Gilliam said.

“One thing about women-owned, black-owned startups: because there is such a high bar to get support our businesses tend to be scrappier, stronger and more resilient.”

Privileged ‘pipeline’

Women-led startups tend to be on the outside of the “pipeline” that unofficially funnels entrepreneurs to venture capitalists, according to Kapin and others.

In Silicon Valley, that channel is open to male, white tech entrepreneurs from select universities such as Stanford.

“The pipeline becomes filled with people from the same universities; from similar backgrounds,” Kapin said.

“It is not representative of the world, which is problematic because you are trying to solve the world’s problems through the lens of very few people – mostly white men.”

Investors competing for gems in the frothy tech startup scrum are missing out on a wealth of returns, and stability, to be had by investing in neglected women founders, according to Caroline Lewis, a managing partner in Rogue Women’s Fund, which does just that.

“At the end of the day, it is the right thing to do and it is a good thing to do,” Lewis said. — AFP

Fibre-optic cables could detect earthquakes

IF you think that fibre-optic cables are only useful for providing high-speed Internet access, then think again, because they could also provide valuable information about hazardous events such as earthquakes and flooding.

Most often installed via underground networks of cables, fibre-optic technology can be used to monitor ground vibrations.

It may sound surprising, but this “hidden function” of fibre-optic technology could prove particularly useful because geophones – the seismic monitoring devices traditionally used by geologists – are often difficult to install in urban areas due to high maintenance costs, and risks of theft and vandalism.

Using fibre-optic distributed acoustic sensing (DAS) technology and existing telecommunications infrastructure, already in the ground, researchers from Penn



Fibre-optic cables can be used to monitor ground vibrations — AFP Relaxnews

State University converted the fibre-optic cable under the faculty campus to 2,300 seismic sensors.

The researchers then continuously recorded ground vibration data. This was stored on a network-attached storage server to provide remote, real-time data access.

“We discovered that the fibres could pick up a wide variety of signal vibrations, from thunderstorms to human walking steps to

music concerts. We can even distinguish the specific song at a concert by the patterns of the high and low tones. That’s a great demonstration of the sensitivity of these sensors,” explains Tiejuan Zhu, assistant professor of geophysics at Penn State and principal investigator on the research, published in *Solid Earth*.

However, the data obtained via these sensors did not turn out to be as accurate as data obtained

using traditional geophones. Still, the scientists hope to be able to overcome this limitation thanks to new fibre-optic technology, coming “in the next five years”.

Among other things, the researchers now plan to use fibre-optic technology to monitor smaller events long-term, such as the underground movements that can lead to sinkholes and flooding.

“Several experiments in California have been carried out by teams using existing telecommunication infrastructure. But deploying this technology on the East Coast is important because we have very special geology here,” said Zhu.

This isn’t the first time scientists have put fibre-optic technology to use in observing and monitoring nature. It is notably used for off-shore ocean observations and to monitor permafrost stability in the Arctic. — AFP Relaxnews