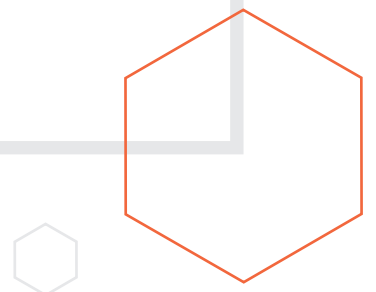


WHITE PAPER

HOW CROWDSOURCING WILL CONTINUE TO TRANSFORM THE IN-HOME & BUSINESS SERVICES MARKET OVER THE NEXT FIVE YEARS

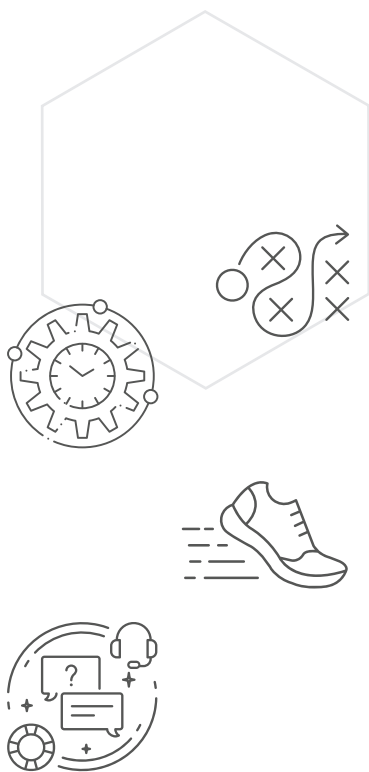


SUMMARY

The connected home device sector is expected to grow in value by over 200% over the next 5 years¹. With a limit to the capacity of an organisation's current installation services and a growing trend for consumers willing to pay for installation and set-up expertise², outsourcing to crowdsourced organisations is set to rise.

Crowdsourcing is a subset of the growing gig economy in which a business delegates certain tasks to an external group of skilled professionals.

A growing number of companies offering a range of goods and services, including white goods, electronics, smart-home devices, and telecom products and services, already use this model alongside their own in-house or outsourced solution.



Their key reasons for doing so include:

- Flexibility** - Crowdsourcing taps into a mobile labour model.
- Efficiency** - Crowdsourced solutions reduce the costs of installation services and free up existing resources for more valuable tasks.
- Speed** - An outsourced organisation with good national coverage can often offer a fast response to a consumer's installation request.
- Additional service offerings** - Outsourced companies are often set up to deliver a different or wider range of services.



For most companies specialising in the delivery of goods & services, customer loyalty is a major focus, but with ever increasing access to choice, and growing customer demands, this becomes more difficult to achieve. This fact, alongside companies now requiring seamless partner service and increased visibility, demands a different type of service provision including:

customer protection & safety (e.g. installers having been DBS, & Right to work and qualification checked), **convenient customer appointment times** (e.g. evenings, weekends and fixed-hour time slots), **customer friendly staff** (who are able to provide a great service and can sell additional goods & services), **insight & feedback** (e.g. additional information on the customers home environment and future service requirements), and **data accessibility** (e.g. 24/7 access to actions and performance measures).

With crowdsourced installations on the rise, we also see a trend in companies wanting their installation partners to match their own commercial measures and values, including

systems integration, data security (GDPR, ISOs etc.), insurance liability coverage, payment terms and positive Crowd experience (e.g. access to training, fair rates of pay, easy access to earnings, etc.).

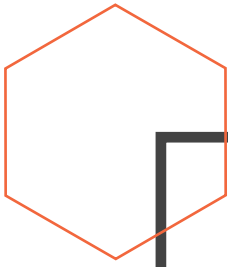
In this growing marketplace for crowdsourced home installations, the winners will be those who can meet the requirements of larger companies looking to capitalise on the significant benefits of this relatively new model.

Roamlar Tech (NL) already has more than four years' experience developing this model with some of the largest telecom and smart-home companies, and Roamlar Tech (UK) is now working with some of the largest UK providers to apply this model across both in-home and business services in the UK.

If you would like to see the full report, please email sales@roamlartech.co.uk

¹Market Watch Research 2019

²Do It For Me – Techcrunch.com



THE CROWDSOURCING MODEL HAS BEEN AROUND SINCE 2010

The term crowdsourcing can be traced back to a 2006 article in Wired magazine (Geoff Howe, "The Rise of Crowdsourcing", January 2006), and it has subsequently been used by companies including Lego, Hasbro, Ben & Jerry's, Glossier, Vaseline and Nescafé to describe their method of "crowdsourcing" ideas for brand developments via the internet. In addition, crowdsourcing within the in-home services sector has increased as part of the growing gig economy since around 2010, when mobile technology shifted from cellphone to smartphone.

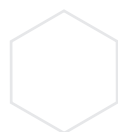
With comprehensive user interfaces, including cameras, GPS tracking and browser technology, smart phones opened the door to a large number of never-before-seen business models based on this new technology and gave birth to many of the companies that are now fixtures in the marketplace, such as Uber, Deliveroo and Airbnb.

To fully understand the crowdsourcing model, it is important to distinguish it from the gig economy. The term "gig economy" includes all independent contractors (online work, temporary positions, second jobs, part-time employment, freelancing etc.); the crowdsourcing model is a subset of this economy in which companies delegate certain jobs and tasks to outside labour, often within a local geographical area. By using this model, companies can benefit from flexible services, often at reduced cost.

Crowdsourcing is now used widely across Europe for in-home services in a variety of sectors, including telecom, smart home, consumer electronics and online retail, in both the commercial and public sectors.



THIS CROWDSOURCING MODEL IS SET FOR SUBSTANTIAL GROWTH OVER THE NEXT FIVE YEARS



The connected-home device sector is expected to grow in value over 200% over the next 5 years³ (or CAGR 25% according to Mordor Intelligence in their 2019 report). Given that the capacity of a company's current installation services is limited and that consumers are increasingly willing to pay for installation and set-up expertise⁴, the use of crowdsourcing organisations for both in-home and business services is set to rise.

While the most widely known organisations in crowdsourcing are B2C service providers (platforms offering their services directly to the consumer such as taxi companies, delivery services, handymen, etc.), there have also been significant developments in the B2B sector. Crowdsourcing adds a flexible workforce layer — often as skilled as the employed workforce — that is able to scale up or down depending on workload.

Whether it be for smart-home connectivity, installation of white goods, TV installation and set-up or business services and maintenance, consumers and businesses now often prefer to have someone come to their premise to perform a service on behalf of a supplier. This shift from DIY (do it yourself) to DIFM (do it for me) makes a crowdsourced team an attractive solution for both consumers and businesses.

“Using crowdsourcing, businesses can overcome their own limitations by relying on the collective intelligence on a pay-for-use basis.”

- servicefutures.com

³Market Watch Research 2019

⁴Do It For Me – Techcrunch.com

COMPANIES ARE BENEFITTING FROM THE CROWDSOURCING MODEL

Although there is generally a growing shortage of skilled people available in the labour market, there is no shortage of work for certified electricians, plumbers, telecom professionals, etc. Thus, companies employing these skilled professionals in their workforce benefit more from having them assigned to higher-value tasks instead of relatively simple in-home jobs.

This is where we see the squeeze on resources: companies often have fixed resources (number of skilled workers) while consumer demand for services and installations is growing.

Crowdsourcing can help companies optimise their workforce to meet the increased demand for in-home services while maintaining sufficiently skilled employees for more complex activities.

A “job” could be defined as “a combination of tasks”, some of which are complex (e.g. fibre welding for telecom engineers) and some less complex (in-home modem swap for the same telecom engineers). But all these tasks together make up the “job” of a telecom engineer. Consider the case of an all-around, highly skilled engineer employed by a large telecom provider: if relatively simple, repetitive, geographically spread-out jobs are removed from his or her task list, then more time is left for the complex jobs in which this particular employee excels and is therefore most valuable and useful for the company.

Crowdsourcing for in-home installations as a B2B service uses a pre-selected Crowd of independent, self-employed professionals that use the platform to accept and perform tasks on behalf of another company. Imagine, for example, a telecom company with its own installation team of all-around professionals.

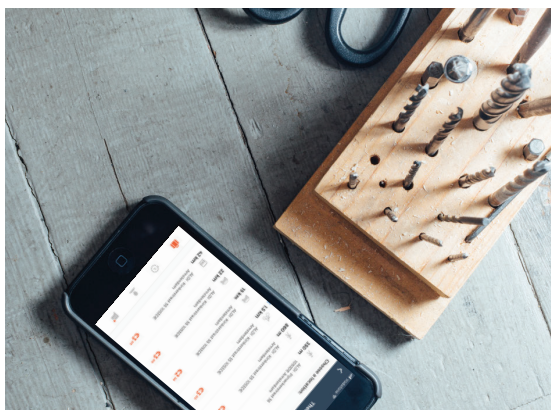


This company is focused on rolling out a fibre upgrade to consumer homes that requires the skills of these highly trained employees, but on the other hand, the company must also provide full customer service, such as free router installation services and wifi optimisation.

This telecom company could choose a solution where they have their in-house team of skilled engineers work on the fibre upgrade while a crowdsourcing partner performs the in-home services.

This crowdsourcing partner would build up a Crowd of skilled independent telecom professionals who perform in-home installations on-demand. The end-consumer chooses the exact date and time for their installation (12 hours per day, 7 days per week), and the job

will then be posted on the crowdsourcing platform where only selected independent professionals will be able to accept this job.



The engineer will then visit the client on the requested date and time to perform the service on behalf of the telecom company. Every step in the installation is recorded in the app that the engineer uses and is fed back into the

telecom's systems in order to create a complete customer file.

Complementing a business's workforce with a crowdsourced solution results in a triple-win situation: the company wins because they can use their own, highly paid work force for more complex jobs while still being able to compete on service and flexibility. The independent professionals win because they can fill up the empty spots in their work week with ready-to-go jobs in their vicinity that they can accept when it suits them. Most importantly, the customer wins because they can choose the exact date and time of installation to suit their needs.

A growing number of companies already use this model alongside their own in-house or outsourced solutions.

THEIR KEY REASONS FOR DOING SO INCLUDE:

Flexibility - Tapping into a flexible labour model - a nationwide crowd of thousands - allows a business to support a wide range of activities and to manage fluctuations in capacity, such as during peaks or holiday seasons.

Efficiency - Because crowdsourcing is often cheaper than fixed-labour models, it allows companies to reduce the costs of installation services while freeing up existing resources for more valuable or essential tasks. In 2019, Costa Coffee used a crowdsourcing service to measure and record the POS sites in all its UK branches. The resulting data led to a print and distribution cost reduction of c20%.

Speed - An outsourced organisation with an extensive national coverage can often offer a faster response to a consumer's installation or service request than the company itself. For example, in 2019, Dutch company Vim Group used a crowdsourcing service to measure over 2000 ATMS in order to produce new branding material; this was achieved in under 72 hours.

Additional service offerings - Outsourced companies are often set up to deliver a different or wider range of services, including consumer feedback, insights, photographs, surveys, asset tagging, track & trace, pre-installation checks, etc.

For most companies specialising in the delivery of goods & services, customer loyalty is a major focus, but with ever increasing access to choice, and growing customer demands, this becomes more difficult to achieve.

Companies, such as those within the telecoms (new customer installation, repairs, modem swaps, wifi optimisation etc.), smart home (including connected devices, IOT, thermostats, doorbells, security & alarms etc.), vending (installation, service & maintenance), heating (boiler maintenance, service & repair) and public sector are now requiring seamless partner service and increased visibility.

This demands a different type of service provision including:

Customer protection & safety (e.g. installers having been DBS, Right to work and qualification checked, and ideally that customers have visibility of who will actually be visiting their home), convenient customer appointment times that suit the customer, not the provider, including evenings, weekends and fixed-hour

time slots (as customers increasingly don't want to wait in, or take time off work to wait in for a 'between 12 and 5' appointment!),



customer friendly installers who are not only able to provide a great service (e.g. install a smart home device) but are able to engage with customers and sell additional goods & services), insight & feedback delivering additional information (gathered with consent) on the customers home environment, current products & devices and future service requirements etc., and data accessibility (e.g. 24/7 access to actions and performance measures).



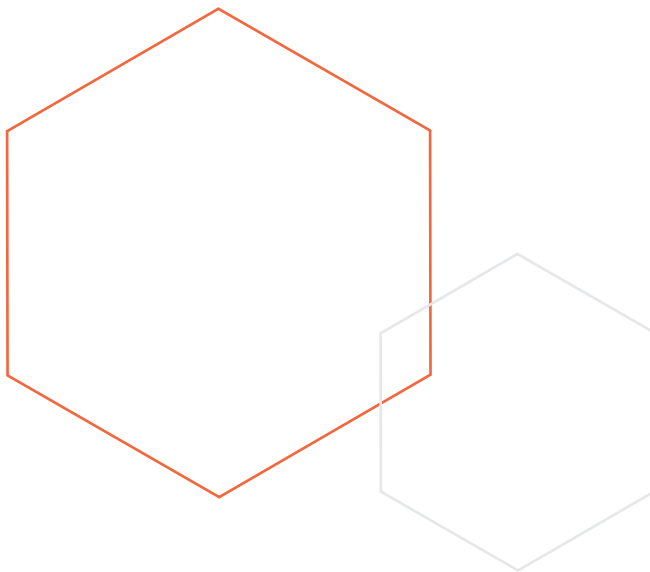


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Crowd sourcing offers flexible time and capacity resourcing for audit and increasingly activation tasks across many markets.

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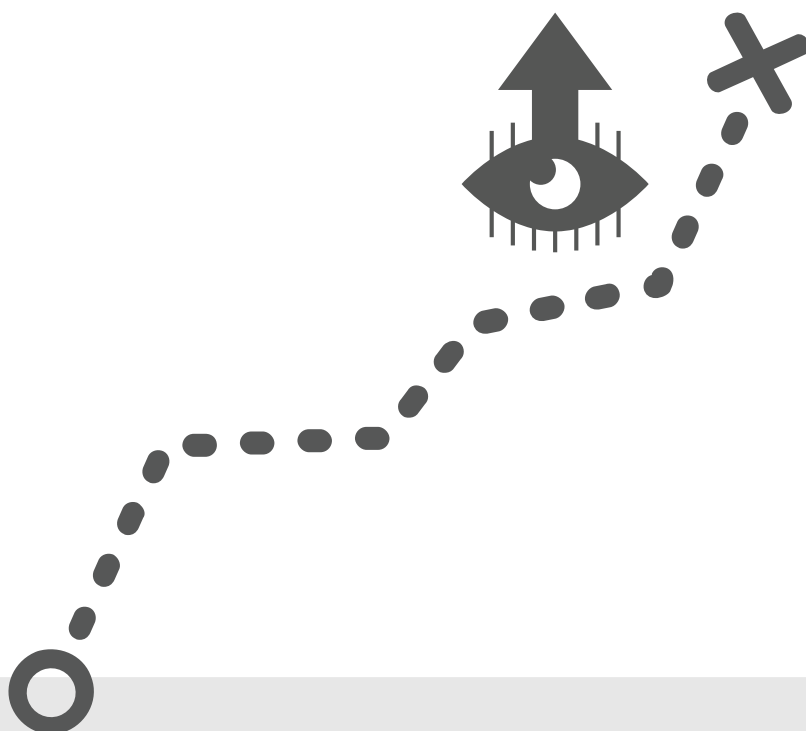
Mike Price - Unilever: Global modern trade execution lead



INCREASING DEMANDS ON CROWDSOURCING PROVIDERS

While it's clear that the market for crowdsourcing will continue to grow, crowdsourcing organisations - despite the obvious benefits they offer - will also have to adapt to new market demands. For example, we see a trend in companies expecting their installation partners to match their own commercial measures and values. One such instance is **systems integration**: it is important that the partner organisation's systems can effectively exchange data with the company. Another critical point is **data security**; many companies expect the partner organisation's systems to adhere to the same stringent industry standards as their own (e.g. for GDPR, ISOs etc.). Companies often want a partner's **insurance liability coverage** to be in line with their own and for **payment terms** to align with their standard terms and conditions. Companies also expect a **positive crowd experience** e.g. access to training, fair rates of pay, easy access to earnings, etc.

Thus, in this growing trend of crowdsourced home installations, the winners will be those that meet the requirements of larger companies looking to capitalise on the significant benefits of this relatively new model.





ROAMLERTECH'S EXPERIENCE

Roamler was founded in 2011 as the first crowdsourcing service provider in the Netherlands (and one of the first in Europe), where the company gained momentum in retail execution. Organisations including Unilever, Costa Coffee and 3Mobile use Roamler's platform to check execution in retail outlets. Currently there are more than 70,000 active "Roamlers" performing approximately 3 million tasks annually across nine European countries.

The company expanded to in-home services with RoamlerTech (NL) in 2016. This Crowd consists of certified, self-employed professionals who perform over 15,000 tasks a month on behalf of large telecoms and smart-home and utilities companies, including Eneco, KPN and Ring. While this started with more basic tasks, the model has been developed to include full installation jobs such as boiler installations and will diversify to accommodate more complex requirements.

With over four years' experience developing this model with some of the largest telecom and smart-home companies in the Netherlands, RoamlerTech recently launched in the UK (RoamlerTech UK) and is working with some of the largest UK providers, including Ring and TalkTalk. Projects both live and in development include the installation of smart-home devices, TV installation and set-up, in-home router swaps, same-day installation for vulnerable customers, pre-installation surveys and vending machine audits and servicing.

RoamlerTech's clients particularly value the flexibility that this business model offers: they can deploy their own resources more effectively while still being able to provide optimal service to their customers. Companies also value the insights and feedback they get back through the platform and the fact that RoamlerTech assumes full responsibility for the services they perform on the company's behalf (with most B2C models, this responsibility is effectively "outsourced" to an independent professional).

“ Ring is partnering with RoamlerTech to offer our UK customers installation support for our range of home security products. ”

Jan Degner – Ring: Sales Lead B2B & Business Development Europe

RoamlerTech is expecting to expand into Germany and France later in 2020 with full confidence that crowdsourcing is the future model for in-home services.



www.roamlertech.co.uk