

DELIVERING SAFE DRINKING WATER IN RURAL CAMBODIA

INSIGHTS FROM OUR 2024 ENTREPRENEUR SURVEY









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GLOSSARY



Water kiosk: small water purification plants installed by Teuk Saat 1001 in collaboration with the Ministry of Rural Development and communes (average 10,000 inhabitants per commune). Raw water from a local source is purified using a multi-step filtration process including UV treatment technology, ensuring compliance with potability standards.



Entrepreneurs: Local residents recruited by Teuk Saat 1001 to manage water kiosks as entrepreneurs. They receive all necessary equipment upfront without initial capital investment, but may reinvest later to expand. Their income comes from water sales, and they are responsible for ensuring high-quality service.



Teuk Saat 1001 platform: Teuk Saat 1001 operates five support platforms distributed across four regional offices, designed to provide decentralized and efficient technical and operational support to its network of water kiosks.



O-we: the community-based brand of safe drinking water produced and conditioned in refillable 20-liter bottles at Teuk Saat 1001's water kiosks.





1. Introduction

The challenge of safe drinking water access in rural areas of low- and middle-income countries goes far beyond simply building infrastructure. Too often, the real barrier lies in operating these systems effectively and delivering consistent, high-quality service to the communities they are meant to serve. Achieving this requires skilled local operators who can manage, maintain, and adapt services to meet demand — creating a virtuous cycle of reliable and sustainable provision.

Addressing this challenge has been at the core of Teuk Saat 1001's mission since its inception. Over the past 20 years, this Cambodian non-profit organization has worked to expand access to safe drinking water in rural Cambodia, not only by developing water treatment infrastructure but also by building local capacity to operate it. In partnership with 1001fontaines and the Ministry of Rural Development, Teuk Saat 1001 has scaled the water kiosk model nationwide, now serving 1.3 million people with safe drinking water.

This network of community-owned kiosks is managed by local entrepreneurs who are recruited, trained, and supported over the long-term by Teuk Saat 1001. These entrepreneurs deliver safe drinking water in 20-liter reusable bottles directly to households, ensuring compliance with standards while promoting convenience, trust, and adoption within their communities. Revenues from water sales cover the kiosks' operating and maintenance costs — including providing a fair income for the entrepreneur anchoring model financial the in sustainability.

A cornerstone of this approach is the belief that any motivated local resident can be empowered to become a water entrepreneur.





While earlier studies¹ have highlighted the strong link between Teuk Saat 1001's best practices in operations and maintenance and the performance of kiosks, there had never been a comprehensive analysis focused on the entrepreneurs themselves.

The study presented in this report seeks to fill that gap. It explores who these entrepreneurs are, how they perceive the support provided by Teuk Saat 1001, what motivates them in their role, and whether certain personal characteristics are linked to stronger performance.

Conducted in collaboration with two academic researchers and following rigorous statistical methods, this study offers fresh insights that confirm the relevance of Teuk Saat 1001's approach, support continuous improvement as the rural Cambodian context evolves, and contribute to broader sector discussions on one of the critical challenges limiting progress toward SDG 6.1: ensuring that rural water services are not only built, but effectively operated and sustained over time.

¹ Guillaume Martin. <u>Croissance des entreprises communautaires en environnement " bas de la pyramide ": les enseignements d'une étude de cas longitudinale à l'échelle micro méso au Cambodge. Gestion et management. Université de Strasbourg, 2021.</u>



2. Methodology

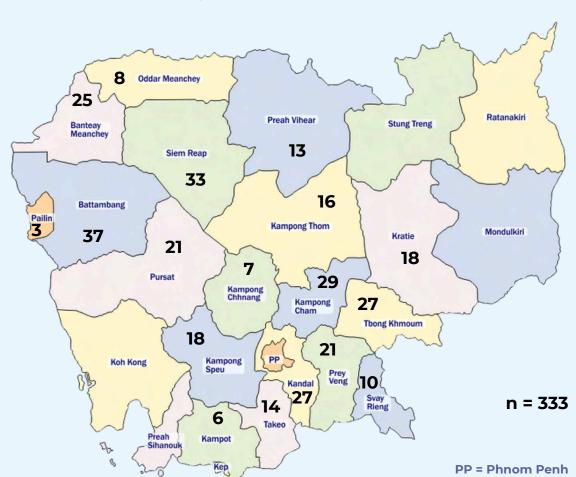
This study was carried out by two academic researchers Laëtitia Gabay-Mariani (KEDGE Business School) and Guillaume Martin (UVSQ – Paris Saclay), in collaboration with 1001fontaines and Teuk Saat 1001. It brought together academic expertise in entrepreneurship and management and field knowledge of the Cambodian context.

A dedicated questionnaire was co-designed with the 1001fontaines team, translated into Khmer, and field-tested by Teuk Saat 1001's regional team to ensure alignment with local realities. Data was collected during routine kiosk visits by Teuk Saat 1001's field team in October 2024 and January 2025, resulting in a nationally representative sample of 333 entrepreneurs.

Data was then entered and monitored using 1001fontaines and Teuk Saat 1001's internal tools.

The analysis combined several methods — descriptive statistics, regression models, fuzzy-set Qualitative Comparative Analysis, and correlation tests — to identify key trends and patterns. Final results were reviewed with Teuk Saat 1001 to ensure consistency with field observations and integrate local insight into the interpretation.

The map below shows where the surveyed entrepreneurs are located, with the highest concentrations in Battambang, Siem Reap, Kampong Cham, Tboung Khmum, and Kandal.



Map 1 - Geographical distribution of water kiosks



3. Findings

Turning motivated local residents into professional water entrepreneurs

In rural Cambodia, Teuk Saat 1001 implements a structured and inclusive recruitment process to identify future water entrepreneurs directly within the communities where kiosks are established.

This process is conducted in close collaboration with local authorities and community leaders, who help select candidates based on clear criteria - primarily

motivation and basic skills such as reading, writing, and counting.

The selected entrepreneurs reflect the diversity of the communities we serve. Their average age is 39, with most between 33 and 45 years old, indicating that they are primarily mid-career individuals. While men make up the majority (79%), women account for 21% of the network.

30% — 20% — 10% — Owner and school not completed Drimary school complet

Figure 1 - Distribution of entrepreneurs by education level (%)



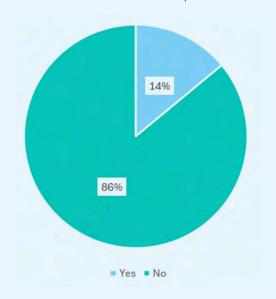


Most come from low-income or informal jobs such as services, trade, or manual work — and very few have completed higher education.

Among the 333 entrepreneurs surveyed, had no prior entrepreneurial experience, and only 15% came from entrepreneurial families. This underscores ability to model's ensure that opportunities are accessible to individuals who are often excluded from formal employment or entrepreneurship pathways.

The remaining 14% are identified as "serial entrepreneurs", having launched one or more businesses prior to managing the kiosk. These serial entrepreneurs are more likely to have entrepreneurial parents and often engage in side activities beyond their kiosks, reflecting a more flexible and opportunity-driven profile. However, they tend to have less experience in their current kiosk, suggesting they move between ventures more frequently than first-time entrepreneurs.

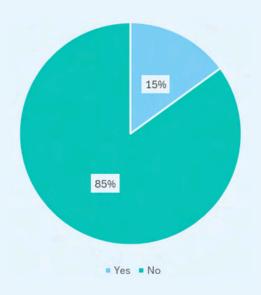
<u>Figure 2 – Serial entrepreneurship</u> (% of entrepreneurs who had previously run a business)



members.

For two-third of entrepreneurs, running a water kiosk is a full-time occupation. Others combine it with part-time activities such as agriculture or small trade. Kiosks are typically operated by small teams of one to three people, often composed of family

<u>Figure 3 – Parent entrepreneur</u> (% of entrepreneurs with at least one entrepreneurial parent)



Most entrepreneurs work alongside at least two relatives, and in over a third of cases, the entire team is made up of family members. This strong family involvement plays a key role in daily operations and helps build trust and engagement.



8 years

Once trained, entrepreneurs manage their business independently and determine their own compensation balancing a fixed salary with a share of the profits. Their average monthly incomes, typically ranging from \$219 to \$459 per month, are above the average minimum wage in the garment industry, which stood at \$204 in 2024.

In the local context, these earnings are considered attractive and allow entrepreneurs to support their families. This financial stability - especially when multiple relatives are involved - fosters strong motivation and retention, reinforcing the sustainability of our model in rural areas.

25
20
15
10
5

4 years

Figure 4 - Distribution of Entrepreneur by Length of Experience at Teuk Saat 1001

Entrepreneurs remain engaged long-term, with an average of nearly four years in the network, with some having joined over a decade ago. At the same time, nearly half were recruited in the past two years, largely due to the opening of new sites. This balance between new recruits and experienced operators reflects a healthy balance between expansion and retention.

1 year

2 years

3 years

<1 year

These findings confirm a core assumption of the 1001fontaines model: with the right support - structured training, tailored tools, and ongoing guidance - individuals from all backgrounds, regardless of their education or prior experiences, can become competent and committed water entrepreneurs capable of operating their kiosks professionally and sustainably.

7 years

6 years

5 years





How Teuk Saat 1001 empowers entrepreneurs: positive perceptions of support

The strength of Teuk Saat 1001's model lies not only in its technical expertise but also in the comprehensive support it offers entrepreneurs. This support is provided by 5 regional platforms: the support team gives initial training covering technical skills, administration and finance, management, as well as sales and delivery. Entrepreneurs then benefit from ongoing coaching and support through monthly visits and on-demand technical assistance. The network is further strengthened by shared branding and regular seminars that foster community and knowledge exchange.

To better understand how entrepreneurs perceive this support, an anonymous survey was conducted across the national network. It was carefully designed to reduce bias and encourage honest feedback.

The results are unequivocal: 100% of respondents across all provinces found the training provided by Teuk Saat 1001 very useful. The vast majority also reported receiving clear and sufficient operational guidance, confirming the value of a structured onboarding process.





Importantly, most respondents feel they benefit from a balanced approach between structured support autonomy. While entrepreneurs receive essential guidance to ensure compliance quality standards and sound financial management, they also enjoy the freedom to adapt their operations to market conditions and individual management styles. balance between accompaniment and independence is crucial for maintaining both motivation and strong business performance.

From a financial perspective, entrepreneurs widely agree that their income is adequate, and that benefits are fairly linked to performance. This creates a clear, results-based incentive that strengthens ownership and responsibility.



Teuk Saat 1001's brand is another major asset. It enjoys a strong reputation for quality and service across all regions. Entrepreneurs describe the brand as trusted and respected. This reputation enhances their visibility, legitimacy, and customer loyalty.

Still, the survey highlighted some areas for improvement. In a few provinces, entrepreneurs reported feeling less involved in decision-making, indicating a need to strengthen participatory mechanisms.

Perceptions of autonomy also vary slightly by region, with some operators in the Phnom Penh area reporting a greater sense of oversight and reduced flexibility.

Overall, these insights confirm the effectiveness of Teuk Saat 1001's support model. Beyond providing operational tools, it fosters confidence, autonomy, and legitimacy entrepreneurs need to thrive. At the same time, the organization remains responsive to local feedback and committed to continuously improving its support system.

Here is a summary of several questions anonymously asked to entrepreneurs across different regions. Each statement was rated on a 5-point Likert scale, where respondents indicated their level of agreement—from 1 (Strongly Disagree) to 5 (Strongly Agree).

<u>Table 1 - Regional Overview of Key Entrepreneur Satisfaction Indicators: Training, Guidelines,</u>
Income, and Brand Value

Regions	Training Helpfulness	Guidelines Clarity	Business autonomy	Adequate Income	Brand Value
Siem Reap	4.7	4.5	3.88	4.35	4.81
Kampong Cham	4.58	4.38	3.83	4.36	4.62
Battambang	4.77	4.5	3.76	4.63	4.84
Kampong Speu	4.8	4.38	3.89	4.73	4.75
Phnom Penh	4.83	4.4	2.17	4.26	4.64



What drives water entrepreneurs to stay? Understanding motivation and commitment

Entrepreneur retention is key to ensuring service continuity and sustained impact. Teuk Saat 1001 has prioritized tailored training and ongoing support to help each water kiosk reach sufficient sales to cover its costs, while investing in performance monitoring to guide these efforts. This approach is grounded in the belief that income incentives form the backbone of long-term entrepreneur engagement.

While the study confirmed that income is indeed a key motivational driver — an extrinsic factor alongside job security and social recognition — it also revealed how complementary and dynamic motivations play a role: intrinsic drivers, such as personal satisfaction and interest in the work, as well as prosocial motivations, reflecting the desire to serve the community and contribute to a broader mission.

 5.0

 4.5

 4.0

 3.5

 3.93

 4.14

 4.20

Intrinsic motivations

Figure 5 - Score per Motivation Type



Extrinsic motivation

Entrepreneurs are motivated by a combination of factors that reinforce one another—earning a living, enjoying their work, and making a difference in their communities. Among these, the desire to contribute to their community ranked highest (average score of 4.20 out of 5), followed by personal fulfillment (4.14), and then financial or external rewards (3.92). This shows that while the latest matters, entrepreneurs are above all driven by purpose, community impact, and the personal meaning they derive from their work.

Prosocial motivations



These motivations do not act in isolation; rather, they combine and reinforce each other, shaping how entrepreneurs perceive their role and its value. Overall. entrepreneurs rated prosocial motivation highest (average score of 4.20 out of 5), followed by intrinsic motivation (4.14), and then extrinsic motivation (3.92). This suggests that while financial and external rewards matter, entrepreneurs are above all driven by purpose, community impact, and the personal meaning they derive from their work.

Beyond motivation, the study also explored how entrepreneurs build **commitment**, both affective (rooted in values and emotional connection) and instrumental (based on practical benefits). These commitments apply to their kiosk as a micro-enterprise, and to Teuk Saat 1001 as the supporting organization.

Affective commitment was strongest, especially toward their kiosk (4.33/5), reflecting pride and a sense of identity, with a similarly high level of attachment to Teuk Saat 1001 (4.26). Instrumental commitment was slightly lower, yet still notable — confirming that tangible benefits and opportunities also matter.

An encouraging 98% of respondents expressed a positive intention to continue as entrepreneurs, with an average score of 4.38/5. Remarkably, one-third chose the maximum score, demonstrating a strong desire to keep growing their businesses and serving their communities.



Looking closer, the study identified three types of profiles that explain why entrepreneurs stay:



Network-oriented

motivated by Teuk Saat 1001's mission and membership in a national network



Community-driven

driven mainly by loca community impact



Independent

focused on their own kiosk and professional role, valuing autonomy

These profiles provide practical insights for designing tailored network animation strategies in the future.



Above motivation: the role of best practices in best performances

Building on the profile and motivation data, the study further explored what distinguishes high-performing entrepreneurs — specifically in terms of sales volumes that underpin both social impact and economic viability.

Surprisingly, the analysis found no significant correlation between individual characteristics and performance. Factors such as prior entrepreneurial experience, age, or even motivation type — whether intrinsic, extrinsic, or prosocial — did not predict better results. This suggests that personal traits alone do not explain why some entrepreneurs outperform others.

To dig deeper, the study integrated operational data routinely collected by Teuk Saat 1001. This uncovered two key drivers of performance rooted in practice rather than profile:

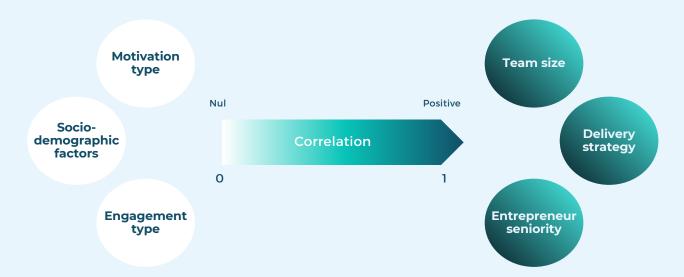


Figure 6 - Key Driver of Performance (volume/day)

Team size and seniority: Entrepreneurs who work with larger teams and have more years of experience consistently achieve higher performance. Their ability to share responsibilities, manage operations effectively, and maintain stable service delivery appears critical. Notably, ensuring a sufficient number of trained operators is one of Teuk Saat 1001's recommended best practices — and the data confirms its effectiveness.

Delivery strategy: Home delivery stood out as the strongest performance driver, far outperforming shopkeeper-based distribution. While more demanding to set up and manage, home delivery allows kiosks to reach customers directly, boost loyalty, and drive higher sales volumes. This customer-centric model is actively promoted by Teuk Saat 1001 as a gamechanging strategy for both impact and sustainability.

Overall, these findings reinforce what previous studies have suggested: performance hinges less on who the entrepreneur is, and more on what they do. Specifically, the consistent application of best practices — supported by open recruitment, tailored training, and close performance monitoring — is what truly makes the difference.



Conclusion

This study provides the first comprehensive look at the 333 water entrepreneurs within Teuk Saat 1001's national network. It confirms the effectiveness of a model that transforms local residents into professional operators through structured training, long-term support, and strong operational systems.

Entrepreneurs come from diverse and often vulnerable backgrounds, yet most successfully transition into the role without prior experience. Mid-career and motivated by stability and purpose, they demonstrate that with the right support, anyone can become a capable water entrepreneur.

Perceptions of Teuk Saat 1001 support are overwhelmingly positive. Entrepreneurs value the quality of training, clarity of guidance, and the balance between autonomy and structure. Teuk Saat 1001 is widely seen as a trusted partner, with its Owe brand bringing visibility and legitimacy in communities.

Motivation plays a key role in retention,

driven by a blend of prosocial purpose, intrinsic satisfaction, and financial reward. Entrepreneurs show strong emotional commitment to their kiosk and to Teuk Saat 1001. The study's identification of three motivation profiles — network-oriented, community-driven, and independent — offers useful insights to tailor future network animation strategies.

However, performance depends more on practice than profile. Entrepreneurs who build strong teams, gain experience, and adopt home delivery strategies consistently achieve better results. These best practices — not personal characteristics — are what drive success and will remain Teuk Saat 1001 priorities in the years to come.

As Teuk Saat 1001 marks its 20th anniversary, the findings offer a clear response to a persistent sector challenge: rural water services don't fail because infrastructure is missing—they fail when human systems break down. This model shows that with the right service, standards and the right support, rural water delivery can be professional, sustainable, and transformative.





About



Founded in 2004, **1001fontaines** is a non-profit organization that designs and deploys innovative safe drinking water solutions. We address the needs of vulnerable communities by supplying refillable 20-liter bottles. Our approach combines impact and sustainability: we build the capacity of our local partners and support them until they reach scale and financial viability. Our solutions have now been adopted by over a million people in four countries of intervention.



For the last 20 years, **Teuk Saat 1001** has been pioneering and optimizing community-owned water kiosks in order to achieve reaching the last mile with safe drinking water. Teuk Saat 1001 is already providing safe drinking water at an affordable price to hundred thousand of rural families and primary schools. But there is still underserved communities for which a water kiosk would offer a way toward a healthiest life and a local sustainable economy.



Laëtitia Gabay-Mariani is an Associate Professor of Entrepreneurship, Strategy, and Sustainable Development at KEDGE Business School. Her teaching explores strategic analysis, corporate sustainability, and innovation through creative methods such as Design Thinking, Design Fiction, and Art Thinking. Her research focuses on entrepreneurial cognition, emotions, and education, with a particular interest in student-entrepreneurs. Her PhD on the engagement of nascent entrepreneurs earned awards from both AEI and AIMS. She has published in leading journals including the Journal of Business Research, and actively contributes to the academic community as a board member, editorial advisor, and reviewer. Before academia, she worked as a research consultant on innovation and transformation projects with major public and private organizations.



With an MBA in Finance, **Guillaume Martin** has over ten years of experience leading complex projects across corporate finance, social enterprise, and development sectors. He has contributed to initiatives ranging from mergers and acquisitions to supporting microfinance institutions and establishing an investment fund focused on poverty reduction in Africa and South Asia. His research explores the governance of common goods and access to safe drinking water in rural areas. He is currently an Associate Professor at UVSQ-Paris Saclay (LIMEEP-PS research lab), and also works as a consultant in social entrepreneurship and impact evaluation. He teaches at Sciences Po and frequently speaks at conferences on European institutions and social innovation.

















