

New Perspectives on Women in WASH: Integrating Women’s Empowerment Programming into a Market-Based Sanitation Intervention



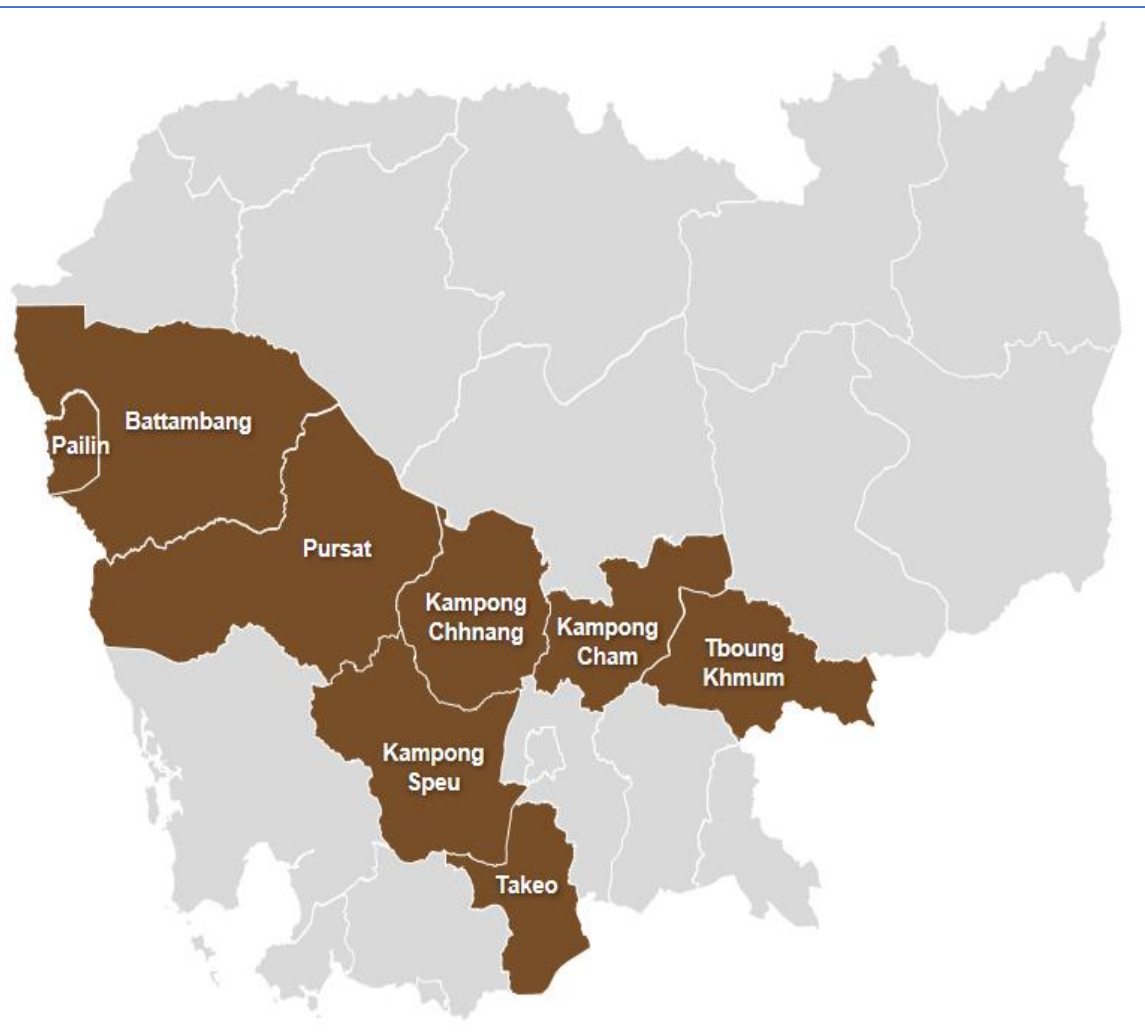
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INTRODUCTION

In 2016, WaterSHED introduced the WEwork Collective, a multi-dimensional women’s economic empowerment program that provided technical support and mentorship to help women succeed in private water, sanitation, and hygiene (WASH) markets in rural Cambodia.

Figure 1. Provinces targeted by the WEwork Collective



Program monitoring data showed that the approach generated interest in WASH income-generating activities (IGAs), including latrine sales, WASH product retail, and owning or operating latrine supply businesses. However, it proved challenging to convert that interest into entrance, retention, and satisfaction in the WASH market.

Therefore, the purpose of this study was to help improve targeting and recruitment of better-fit profiles for rural women more likely to take up and succeed in WASH market IGAs for future programs. The main aims of the study were as follows:

1. **Identify a set of characteristics** of women to help predict current WASH job status, retention & satisfaction in WASH IGAs
2. **Understand the constructs (i.e. attributes of IGAs)** by which women evaluate IGAs, form preferences, & decide which IGAs to engage in

METHODOLOGY

This study followed a mixed methods, cross-sectional research design.

Qualitative Phase

Purposive selection of 15 WEwork women
Convenience sampling of 20 non-WEwork women construction workers and community healthcare workers

Data Collection: Repertory Grid Technique^{1,2}
Element elicitation – Interviewee lists all IGAs she does, used to do, or knows of
Construct elicitation – Interviewee compares/contrasts randomly selected dyads of the elicited IGAs
Interviewee identifies **3 most important constructs** and most **preferred IGA**

Content Analysis
Coded emergent constructs and assessed frequency with which constructs were mentioned (and identified as most important) within and between groups

Triangulation
Checked qualitative and quantitative results against each other as well as against published and grey literature to formulate recommendations

Quantitative Phase

Random selection of 152 WEwork women
Convenience sampling of 66 non-WEwork women construction workers and community healthcare workers

Data Collection: Quantitative survey
Attitude statements developed using primary data from 2013 exploratory qualitative study of women in WASH IGAs

Correlational Analyses
T-tests to identify differences in attitudinal predispositions between WEwork women in WASH IGAs and not in WASH IGAs
Chi-squared tests to identify potential predictors of involvement, retention, satisfaction in WASH IGAs from attitudinal, demographic, and socioeconomic characteristics

Predictive Modelling
Binary logistic regression to create predictive models of current involvement, retention, and satisfaction in a WASH IGA

QUANTITATIVE RESULTS

Personal Attitudes of Women in WASH

Table 1. Selected findings concerning attitudinal predispositions of women in WASH IGAs

WEwork women in WASH IGAs were MORE LIKELY than those not in WASH IGAs to...	
Networks	Know people in the WASH sector to ask for advice [†] Feel that observing others’ success would give them confidence to try new IGAs*
Time	Feel that they spent majority of their time on work-related activities*
Family support	Report having families that worked together to increase productivity, share income Report having family members who helped with domestic duties [†]
Personal agency	Feel they need to consult husbands before making work-related decisions Feel confident communicating with men and women as well as speaking in public
Skills & Knowledge	Perceive they have ‘enough’ technical knowledge to do WASH jobs ^{†*} Perceive they have financial management skills useful for business [†] Feel they had few skills that can be used for IGAs or business [†]
Gender norms	Feel that they are physically able to do any job men can do Perceive that men are more likely to persevere in work or business challenges Feel they need to provide adequate reason to their families to be away from home
Attitude toward WASH IGAs	Imagine themselves owning or managing a business [†]

All attitudes were assessed on a 5-point, Likert-type response scale where 1 was ‘Agree to the greatest extent’ and 5 was ‘Disagree to the greatest extent’; ^{*}Two-sample t-test p-value ≤ 0.05, [†]Welch’s t-test p-value ≤ 0.05 and data were non-normally distributed

Involvement in WASH IGAs

Women who felt they had sufficient **latrine supply technical knowledge** and who could **imagine themselves selling latrines** were more likely to be involved in WASH IGAs.

Table 2. Predictive binary logistic regression model of current WASH job status (Women involved in a WASH IGA at the time of the study vs. All other women)

Predictor	β	SE β	Wald’s χ ²	df	p	OR	Lower	Upper
Constant	-4.34	1.11	15.29	1	0.000	0.013		
Latrine supply technical knowledge	2.17	0.68	10.30	1	0.001	8.780	2.330	33.092
Could imagine selling latrines	2.25	1.09	4.23	1	0.040	9.460	1.110	80.594
Model evaluation	χ²		df	p				
Hosmer–Lemeshow	1.873		2	0.392				

Somer’s D = 0.677, Goodman & Kruskal’s Gamma = 0.841, Kendall’s Tau-a = 0.190, C-statistic = 83.90%. *Selection method:* Forward selection with likelihood ratio.

The model predicts that 1 out of 100 women who met neither of these conditions would have WASH jobs, compared to 52 out of 100 women who met both conditions.

Retention in WASH IGAs

Women who had **families that helped with domestic duties**, felt they had sufficient **latrine supply technical knowledge**, and who could **imagine themselves selling latrines** were more likely to stay in WASH IGAs.

Table 3. Predictive binary logistic regression model of WASH job retention (Women involved in a WASH IGA at the time of the study vs. Women previously involved in a WASH IGA)

Predictor	β	SE β	Wald’s χ ²	df	p	OR	Lower	Upper
Constant	-1.25	0.45	7.78	1	0.005	0.013		
Family helps with domestic duties to enable work	1.05	0.43	5.88	1	0.015	2.856	1.223	6.669
Latrine supply technical knowledge	1.31	0.44	8.81	1	0.003	3.706	1.560	8.804
Could imagine selling latrines	1.04	0.44	5.65	1	0.017	2.825	1.200	6.653
Model evaluation	χ²		df	p				
Hosmer–Lemeshow	4.472		6	0.613				

Somer’s D = 0.402, Goodman & Kruskal’s Gamma = 0.492, Kendall’s Tau-a = 0.191, C-statistic = 70.01%. *Selection method:* Forward selection with likelihood ratio.

For women who have tried WASH jobs, the model predicts that 20% who met none of these conditions would remain in WASH jobs, whereas 90% who met all three conditions would remain in WASH jobs.

Satisfaction in WASH IGAs

We were unable to create a predictive model of satisfaction as **all women involved in WASH IGAs reported being satisfied** with their jobs.

QUALITATIVE RESULTS

When asked **what IGA they would most prefer**, none of the women in WASH IGAs preferred jobs in the WASH market. Below are constructs that emerged as most important for women in evaluating, forming preferences, and making decisions about which IGAs to engage in.

Family Support & Domestic Duties

Both WEwork and non-WEwork women reported **‘home-based job,’ ‘travel,’** and **‘family help’** as three of the most important constructs for considering what IGA to do.

“[I can] work at home because it is hard to travel away from home as I [am] responsible to look after my family so if I work away from home, who is going to take care [of] my children? Moreover, not only taking care [of] my children, but I can do other work at home as well.”
(RGI with WEwork woman, WASH retailer)

Having an income earning activity that was situated at home meant women could also complete housework or other income-generating work, supervise children, and care for elderly family members.

Amount & Stability of Income

Women from all study groups expressed the importance of earning income to support their families. Some women reported considering the **amount of income** they could earn in certain jobs compared to others.

“[I] would like to do [business] casting cement rings. [...] [It] gives more income than other [jobs], so we would be better off with [our living].”
(RGI with non-WEwork woman, construction worker)

Others were more concerned with the **stability or frequency of income**.

“I have nothing so only working as a construction worker that could get income in every 6 days [...] If I sell cake, sometimes it might be left over, but if I work like this [as a construction worker], I will definitely get income every 6 days.”
(RGI with non-WEwork woman, construction worker)

Physical Ability & Energy

Interviewees of all groups described a job that requires a lot of physical strength as ‘heavy’ and ‘exhausting’. Some expressed that **‘as a woman,’** or **‘as they get older,’** they would not be able to do ‘heavy’ work.

“As a woman, I have no [physical strength]...my spouse [...] he’s always gone, [so] it’s just me alone. [...] [Job] that uses little physical strength is easy for [me], even if it makes small [amount] of money [...] because I can still manage [that job] even though [I] have little physical strength.”
(RGI with non-WEwork woman, community healthcare worker)

Contributing to the Community

Women also frequently expressed a desire to **reduce poverty** or **improve health** in their community through their work.

“[Making villagers have good health is] important [...] because [I] would like to help children have good health and help mothers reduce poverty [in their families].”
(RGI with non-WEwork woman, community healthcare worker)

Figure 3. Woman latrine supply business owner



RECOMMENDATIONS

WASH entrepreneurship allows women the flexibility and personal freedom needed to balance an IGA with traditional responsibilities at home. The findings suggest that women pursue latrine supply business ownership not as an opportunity-based venture, but as a pragmatic solution to provide financial support for their families and reduce household poverty.

Frame WASH jobs as a solution for women who need to balance earning income and domestic duties.

Counter to the expectation that WASH entrepreneurs and sales agents need to be risk-taking and highly mobile, respectively, our findings suggest that WASH jobs provided an opportunity to contribute to household income while still operating within the limiting social parameters for married women in rural areas.

WASH jobs may, therefore, be better marketed as a viable solution for women with limited options, women who are dissatisfied with their work, or women who need to balance housework and income generation. This is in contrast to the marketing of WASH IGAs as jobs for women with a desire for independence or a particular orientation toward risk-taking.

Tailor targeting strategies and program design to appeal not only to women, but also to their families.

Findings suggest that familial support goes far beyond mere approval of job choice and extends, instead, to include assistance with household chores, job tasks, financial inputs, etc. that allow the woman to meet the demands of her IGA and daily household tasks. Specifically, family assistance with domestic duties was a significant predictor of retention in WASH IGAs.

Therefore, practitioners may consider targeting strategies that highlight the benefits of WASH IGAs for the whole family. In order to increase the likelihood of retention in the market, practitioners should communicate with the woman business owner and family members about the time and capital investments realistically required to create a profitable business. Buy-in from family members is important to ensure their support.

Contextualize women’s perceived or actual needs for technical training within the country and market context.

The literature draws links between access to information or training and involvement in IGAs or women’s empowerment.^{3,4} Our study suggests that while technical knowledge is an important factor contributing to women’s entrance and retention in WASH IGAs, other factors are more influential for these outcomes, particularly for retention.

While the study does not discount the importance of technical knowledge, it does emphasize the need to account for other factors such as family support. To improve the likelihood of retaining women in WASH jobs, practitioners should design technical skills training that promotes household/family collaboration or assistance in domestic duties.

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