

How to help women sustain careers in male-dominated spaces



While women have made substantial inroads into the world of work and organisational hierarchies, many science, technology, engineering and maths (STEM) related fields such as engineering, still appear stubbornly resistant to gender diversity. Even from the perspective of many of the women who actually work in these industries.

Despite the best efforts of many firms, gender equality in terms of employee numbers is still elusive. Close to 40 per cent of women who gain engineering degrees eventually decide to leave the profession.

Research has identified many barriers that deter women from establishing careers in a male dominated context. The exclusion of women from male oriented social networks, stereotyping women as technically incompetent, perceiving women first and foremost in terms of sexuality and appearance – these are just a few.

However, there are women who manage to forge successful careers, over many years, in work environments dominated by men, including engineering. We decided to get closer to the problem, and actually listen to these women and learn from their experiences.

Rather than talking to organisations about company-wide initiatives, we interviewed 34 women engineers in two FTSE 100 firms (10 early in their careers, 19 in mid-career and 5 in late-career). The organisations that these women worked for are male-dominated organisations with entrenched masculine cultures. However, they had good intentions, they wanted to increase the number of women engineers they employed. Yet regardless of the policies that the employers introduced, women were reluctant to stay.

We tried to understand the factors that helped women to stay in their organisations. The conversations lasted for between one and two hours, covering a wide range of topics from the reasons they pursued engineering as a career to the barriers to advancement that they encountered.

Key factors that help women stay

One of the main findings to emerge from our conversations with the women engineers was the significance of the micro-environment – their immediate surroundings. This might involve, for example, the line manager, the team that a women engineer worked with on a day-to-day basis, the culture that affects the behaviour in that notional space. In turn, interaction with and perception of that micro-environment affected the way that the women thought, felt and acted.

So, for example, there might be aspects of work that an individual interpreted as exclusion at the broad organisational level. A woman engineer may well be unhappy with the way that their organisation is run in that respect. They may even be part of an effort to change that. And, if that broader macro-organisational environment is the main influence on the way that individual thinks, feels and acts, then they may not stay in the organisation. However, if the micro-climate, and the micro-environment are sufficiently positive, if the individual gets on well with their line manager and any mentors they have, if they have cooperative supportive interesting colleagues, if there is a positive nurturing micro-climate, all this can act as a buffer against negative forces in the broader organisation.

It was clear from our conversations that the women found engineering a challenging space, but with the right help early in their careers, they were willing to remain. There were several areas in particular where help could be decisive. These areas, in the majority of cases, concerned actions and initiatives that helped to create a positive micro-environment for women in their everyday work. They were also areas where line managers played a key role in contributing to that micro-environment.

Opening up opportunities. It is important that women are offered opportunities to test existing skill levels and build confidence in their own abilities, and in doing so to create the kind of internal visibility necessary to advance their careers.

It was clear from our conversations that perceptions of competence were an issue. This was partly about men lacking confidence in the competence of female employees, but primarily women expressing doubts (invariably unfounded) about their own competence. This lack of confidence in their own abilities may be due to gender based micro-aggression in the workplace, or workplace isolation from important networks, for example. Whatever the reasons, these doubts prevent women from seeking out and seizing opportunities to advance their careers, making them less adept at self-promotion.

While women may consider confidence an inherent trait, our studies suggest that confidence is partly the product of social experiences in the workplace and, as such, needs to be built. Line managers can take action by offering opportunities that will help women boost their confidence. They can offer stretch assignments and other opportunities that test existing skill levels, or they might suggest standing in for them or another colleague with more senior responsibilities, temporarily assuming a position of higher leadership.

Moreover, if women are reluctant to accept higher level work, line managers can provide the necessary encouragement and support that enables women to accept these opportunities. Successfully completing these types of assignments then creates positive reinforcement.

Another part of what line managers are doing here is helping to create visibility. For women who are fearful of being visible, who are not putting themselves forward, possibly because of a lack of self-confidence, line managers can help to create a platform. In doing so line managers promote career enhancing visibility and access to higher level networks.

Personalised feedback. Another area where line managers can help is with the provision of feedback. Most line managers provide feedback in one form or another, but the women we spoke to were very specific about the kind of feedback that made a real difference. This feedback addressed a number of issues that the women engineers had, around how best to approach a task or finding the right technical area to specialise in, for example.

The feedback that they needed was personalised, constructive, and regular. It was not an institutional routine tick box exercise, mandated by the organisation but something that line managers took upon themselves to do. It was feedback from line managers that demonstrated an interest in the individual engineer's work, and signalled that the manager had taken time to understand the engineer's strengths and weaknesses. This understanding allowed line managers to discuss knowledge gaps and learning needs in order to help female engineers improve performance.

For the recipient the feedback was invaluable in terms of providing specific tailored advice. It gave the recipient a sense of direction, of where they were, how they could progress, and what they needed to work on in order to progress. A common issue for women working in STEM professions is that the career path is not always obvious. However, the line manager offering guidance about possible routes forward, helps to inspire confidence and reinforce the idea that career longevity is possible.

Peer support. Beyond personalised feedback and help with identifying project and task opportunities, women found general peer support useful. Again this was something that happened in the micro-environment.

Women valued support from line managers and colleagues creating an inclusive micro-environment. This was particularly relevant in terms of judgement about performance, for example. Everyone makes mistakes at work. How we are treated when we make those mistakes can have a huge impact on employee loyalty, and how the employees feel about the organisation that they work in. Women appreciated support from their immediate work group if something had gone wrong – it engendered a feeling of being valued and cared for. It was also relevant when women encountered threatening or difficult situations. In such male-dominated environments this might, unfortunately, as it did with one of the interviewees, involve dealing with inappropriate behaviour from colleagues, for example.

For line managers it is often a case of listening to the concerns of women employees and taking them seriously. In the case of mistakes, allaying concerns and reassuring the employee that they are doing well. In the case of inappropriate behaviour, advising an employee of the correct procedures to follow and offering support. As well as creating a nurturing culture and environment in which peer support is encouraged and freely given.

Role models. A fourth factor to emerge was the need for role models. The idea that role models are important for encouraging workplace diversity, especially at senior levels, is not new. But in STEM professions where there are so few women, role models play a crucial role in overcoming a prevailing sentiment that career progression and success is difficult for women to combine with motherhood and having a family.

Here the concept of role models is not necessarily passive; not just a case that women who have successfully combined engineering career and family exist in the organisation at some level.

Organisations can be proactive, making role models more visible. Role models should be able to tell their story, to challenge stereotypes by relating their experiences, to explain how they have coped, in order to make the aspiration of combining a respected career in engineering with motherhood and family life seem something that is both tangible and achievable.

Institutionalising the voices of the underrepresented as part of HR practices

Organisations can take advantage of the insights provided by the many female engineers that we spoke to, by institutionalising these insights as part of their HR practices. Line managers can be trained to recognise intervention opportunities that relate to the factors detailed above. Organisations might also incentivise good practice by recognising and rewarding employees who demonstrate supportive behaviours.

It is important to emphasise that the will and impetus must come from the line manager – and peers – and not just from senior management directive and mandate. Many of the women stressed that positive action from their line managers was ad-hoc rather than part of an organisation wide programme. Organisations often adopt the wrong approach to diversity and inclusion – certainly in terms of getting women to continue in STEM related professions, at least. Diversity and inclusion policies are often set at a very macro, mechanical level. They are directive and have labels attached – policies, regulation, rules, codes, targets.

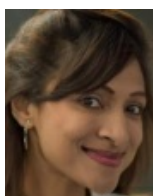
Rarely do organisations listen to people speak. Rarely do they obtain the views of the women working there and try to understand what actually matters to those women. Seldom are those voices and insights captured in HR practices. A bottom up approach is required.

Our research shows that, no matter how well intentioned, it is difficult to second guess the initiatives that would have the greatest impact in terms of increasing retention rates and diversity, long term. This is true for any underrepresented group. In the case of the women engineers in our study the message was clear. To encourage diversity and inclusion, senior management should listen to members of the minority groups that they wish to attract and retain, and take HR action based on what they learn. Certainly, managers in STEM related professions, especially engineering, who want to promote better gender diversity, can start by considering the role of the micro-environment and focusing on the key factors that emerged from our study.



Notes:

- This blog post is based on the authors' paper [What helps? Women engineers' accounts of staying on](#), *Human Resource Management Journal*, 2018; 1–17
 - The post gives the views of its author(s), not the position of LSE Business Review or the London School of Economics.
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