

# INDUSTRIAL INTELLIGENCE REPORT: A FUTURE OF WORK THAT WORKS FOR WOMEN



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# Introduction

The Future of Work (FoW) has emerged as a major policy topic in recent years. New technologies are expected to transform the FoW, displacing many existing jobs and ways of working.

Today, due to the growth of automation and technological advancements, women face more challenges than their male colleagues when it comes to labour participation and access to decent jobs. Digitalisation and the demand for new skills are equally important and will have a major impact on how to understand and carry out work, especially for women.

This article intends to explore the challenges faced by women and help chart a path towards suitable jobs that work for women nowadays.

# **Women Skills**

Women, particularly those in mature economies, are generally graduating at rates on a par with, or even higher than men. According to the World Economic Forum (WEF), in year 2019, across developed economies, more women than men graduate with at least a secondary degree.

Nonetheless, they still need to match their skills as closely as possible to where the most job opportunities will be. There is some concern that women are not acquiring skills needed for high-growth fields such as professional, scientific and technical services.

This may be in part, due to the subjects that women choose to study at university. Based on data from the Department of Statistics Malaysia (DOSM) on groups of students enrolling in Private Higher Education in 2019, there was a clear gender division on the subjects studied by men and women.

Women tended to stick to more traditionally "feminine" subjects, such as Social Sciences, Business, Law, Nursing and Education, while avoiding the traditionally male-dominated subjects, such as Engineering, Manufacturing and Construction.

Most of the courses chosen by female students generally tended to be automated.

#### HIGHLIGHTS AND TAKEAWAYS

The future of work describes changes in how work will get done over the next decade. This will be influenced by technological, generational and social shifts.

Future Skills are competencies that allow individuals to solve complex problems in highly emergent contexts of action. This is done in a self-organised way, which enables them to act (successfully).

## Number of Students in Private Higher Education Institution by Course

Courses	No. of Students		
Social Sciences, Business &			144,317
Law		106,138	
Sciences, Mathematics &	37,608		
Computering	38,850		
General Programme	37,323		
	21,548		
Engineering, Manufacturing	29,511		
& Construction	58,066		
Arts & Humanities	23,621		
	29,240		
Health & Welfare	22,939		
	12,272		
Services	22,608		
	25,382		
Education	15,954	Le	gend:
	6,453		Female
Agriculture & Veterinary	578		Male
-	936	$\top$	

Source: Department of Statistics Malaysia, 2019

# **STEM Careers Among Women**

Women represent the majority of university graduates, but are still underrepresented in Science, Technology, Engineering, Mathematics and Computer Sciences (STEM).

This issue has been debated and discussed in great detail by universities, the media and individuals. Among the reasons are as follows:



Misconception about what careers in STEM are actually like.



Perception that women will feel isolated and excluded in the typically maledominated environments.



Social bias affecting women's progress and career choices.

## HIGHLIGHTS AND TAKEAWAYS

STEM careers refer to jobs in science, technology, engineering or math. A foundation in these subjects allow individuals to solve problems, develop new ideas and conduct research.

Source: 'The Gender Gap in STEM Fields' by Frontiers in Education articles

# Women Jobs at Risk of Automation

Labour markets around the world are being transformed with automation. While automation is predominantly associated with robotisation in factory lines, it can also impact the service and administrative sectors. Automation could affect both men and women in the workplace, and evidence suggests that women face greater risks of job replacement.

Based on a study by International Monetary Fund (IMF), given the current state of technology, 10% of the male and female workforce (54 million workers) in 30 countries (28 OECD member countries, Cyprus, and Singapore) is at a high risk (i.e., facing higher than 70% likelihood of being automated) of being replaced by technology within the next two decades. A larger proportion of the female workforce is at a high risk of automation than the male workforce (11% versus 9%), with 26 million female jobs potentially at stake in these countries.

Share of female Share of female By sector By occupation workforce workforce 1% 26% 2% 21% 1.18 echnicians & assoc. prof. 1.35 Crafts & trade 1.16 1.30 Construction Admin. & support (male vs. female) (male vs. female) 1.14 Plant/machine operators 1.25 Financial services 1.12 Transportation 1.20 ervice, shop, & market gap ( **de** 1.15 1.10 Legislators, senior officials, & managers Manufacturin RTI RTI Public admin 1.10 1.08 Elementary Accom & food 1.05 Profes Education 1.06 1.00 0 40 0.45 0.50 0.55 0.60 0.44 0.46 0.48 0.50 0.52 RTI level **RTI** level

#### Chart 1: Gender Gaps by Occupation and Sector

Source: International Monetary Fund, 2019

Based on the chart above, women in clerical, service, and sales positions are disproportionately exposed to automation.

In addition, the analysis suggests the accommodation and food services, retail trade, and transportation sectors have the largest exposure to risk of automation. The retail trade and accommodation and food services sectors on the other hand, employ roughly similar proportions of the male and female workforce.

The other sectors that employ large proportions of the female labour force are health and education, which involve less automation in the future.

## HIGHLIGHTS AND TAKEAWAYS

Automation is the creation and application of technologies to produce and deliver goods and services with minimal human intervention.

# Women will need to be skilled, mobile, and tech-savvy to adapt to the new world of work

The analysis in the previous section indicated that women perform more routine and less-abstract tasks in the same occupations as their male counterparts, placing them at a higher risk of automation.

To reduce the impact on jobs, it is vital for women to:

1	Develop skills
•	that will be in
	demand

Develop the flexibility and mobility needed to negotiate labourmarket transitions successfully

Get access to necessary knowledge of technology to work with automated systems, including participating in its creation

3

Definition of tech-savvy: knowing a lot about modern technology, especially computers.

HRD Corp has a variety of programmes designed to assist the Malaysian workforce to upskill and reskill. Women are one of the targeted vulnerable groups especially for digital technology programmes, which intend to help them advance in their career or get back into the workforce.

**e-LATIH** is a free online training platform developed by HRD Corp for all Malaysians, with more than 400 courses available. Women and men are able to enrol in courses related to Digitalisation, Financial Skills, Leadership, and Programming, just to name a few.

153,183 trainees have registered as of 19 November 2021. Out of which, 81,266 or 53% are women. The most common courses attended by women are Microsoft Excel, Effective Leader's Guide to Time Management and Powerful Presentation Skills.

Based on the e-LATiH statistics above, women are still very much interested in attending training, it is just that, many of them prefer to attend online courses. Online learning is more modular, which can help women to complete sections or modules of training according to their time and availability. As such, the employers should always have this in mind when sending their female employees for training.

Industry Revolution 4.0, one of the programmes launched under the PENJANA initiative, was well received as it offered digitalisation courses for trainees, driving employers towards adopting a digital based business approach. Nonetheless, only 35% out of all trainees in 2020 were women.

# HIGHLIGHTS AND TAKEAWAYS

Clearly, there is still a need for intervention for women in digitalisation or technology-related training. Therefore, employers should play critical roles when it comes to human capital development among female employees. The employers should structure employees' annual training plan focusing on digital technology and flexibility. These should also be accessible from anywhere.

Employers also can participate in the **Place & Train programme** where more female employees can obtain employment in technological and digital positions by participating in value-added relevant training courses required by selected industries.

Moving forward, trainings should not only be digital related, they must also must be tailored to suit females employees with partners and kids.

Previously, the **Housewives Enhancement and Reactivate Talent Scheme (HEARTS) Programme** by HRD Corp managed to help more than 1,300 housewives and single mothers train in specialised fields that enabled them to participate in the labour market. This enabled them to work in less demanding jobs such as translation, proof reading, social media management, internet marketing, etc.

To encourage more participation of women in training and employment, the HEARTS programme will be expanded to include a matching platform for women and single mothers to look for positions in organisations that need expertise and experience within a specific sector. This allows them to generate or supplement current income with flexible work arrangements that can help women and single mothers balance work with other aspects of their life, such as taking care of children and others.

This will be done through the **HRD Corp Placement Centre (HPC)** portal as well as through direct employer engagement.

## Conclusion

By actively assisting and training the female demographic especially in digital platform, HRD Corp is confident that we will eventually see a significant rise of female labour force participation in Malaysia.