

# WHERE ARE THE WOMEN IN THE CHIEF OPERATING, COMPLIANCE AND TECHNOLOGY POSITIONS?

We looked at the data and have some answers

## FINDINGS FROM ACADEMIC RESEARCH ABOUT CTOS AND GENDER

There is a positive relationship between the gender of the CTO and the number of patents and patent citations reported.

Female CTOs are associated with patent counts that are 1.826x that of male CTOs.

Female CTOs are associated with patent citations that are 1.742x that of male CTOs.





# WHAT WE FOUND FOR WOMEN IN COO, CCO & CTO ROLES ACROSS 29 GLOBAL MARKETS

#### THE GLOBAL MEDIANS

We analyzed 36,499 functional positions for the COO, CCO and CTO roles in 29 countries, including 25 developed markets and Brazil, Russia, India, China (the "BRICs"). All public and private firms in the finance industry were included regardless of market capitalization or other characteristics.

The global medians for female representation painted quite a mixed picture for the "operations" leadership positions. The median for the CCO was highest at 38%, with 21% for COOs and 8% for CTOs.

Remarkably, we noticed a fairly strong relationship across European countries with high representation in all three roles. Eleven (38%) of 29 countries were found to be above the median for the CCO role, nine (31%) for the COO role and seven (24%) for CTO. Kudos to the Netherland, Norway, Spain, Sweden and France!

### THE CHIEF COMPLIANCE OFFICER

Our findings show that a number of countries have a significant female representation in the Chief Compliance Officer position.

We analyzed 18,256 positions of Chief Compliance Officer globally and as shown in graph 1, the country with the highest female CCO representation was Russia at 83%, while the country with the lowest female representation was Japan at 7%.

While the number 1 position went to Russia, 10 European countries plus New Zealand, India, Australia scored above the global median.

The US Labor Department reports that compliance is one of the fastest-growing professions for women and currently pegged at 54.2% on average for all sectors in the US.

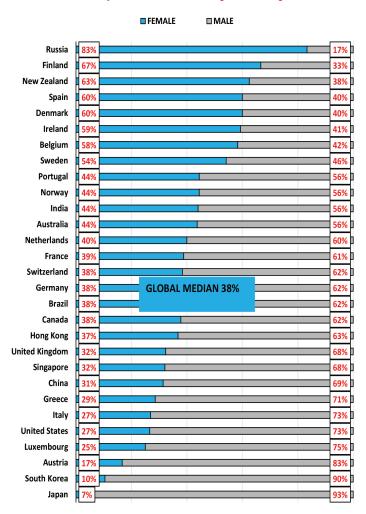
This comes as no surprise given research documenting that women have a natural propensity for avoiding risk (Lundeberg, Fox, and Puncochar, 1994), whereas men tend towards overconfidence in financial matters (Prince, 1993).

It seems that the popularity of the compliance function among women may depend on the straightforward nature of the job itself. Unlike analysts, traders and portfolio managers, the compliance role is characterized by less ambiguity and more immediate feedback. Diffrences in self-confidence between the genders, depends on the lack of clear and unambiguous feedback (Lenney, 1977). This may explain the relatively smaller gender gap we observed for CCOs.

#### **GRAPH 1:**

CCO gender representation ranked from highest to lowest

#### **Chief Compliance Officer by Country and Gender**



Data: SPGlobal, Professional Data, public and private firms

<sup>&</sup>lt;sup>1</sup> DataUSA website: https://datausa.io/profile/soc/compliance-officers#demographics

#### THE CHIEF OPERATING OFFICER

Results for the Chief Operating Officer are presented in graph 2. A global median of 21% was calculated from the analysis of 15,440 positions. A wide range of outcomes was observed. The Netherlands, at 76%, exhibited the highest female representation and as with the CCO position, Japan, ranked at the bottom of the list at 4%.

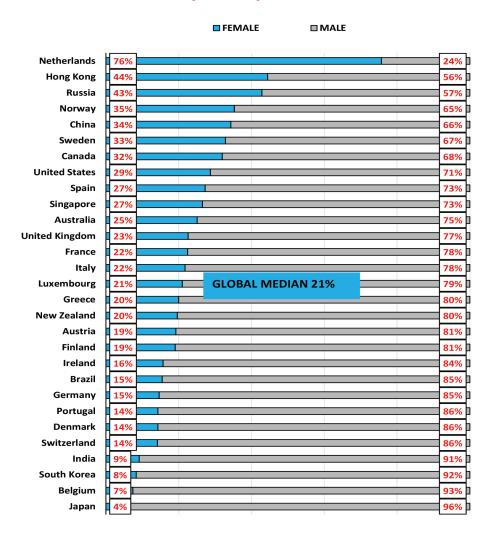
Two of the BRICs, Russia and China, scored at or above the global median while Brazil and

India were well below the median. Eight European countries along with the United States and Canada again scored well above the median.

The United States compares favorably to the global median with a 29% female representation. In the US, the financial sector is also better positioned relative to other sectors, where female COOs represent only 8.5% of the total.

GRAPH 2:
COO gender representation ranked from highest to lowest

#### **COO** by Country and Gender



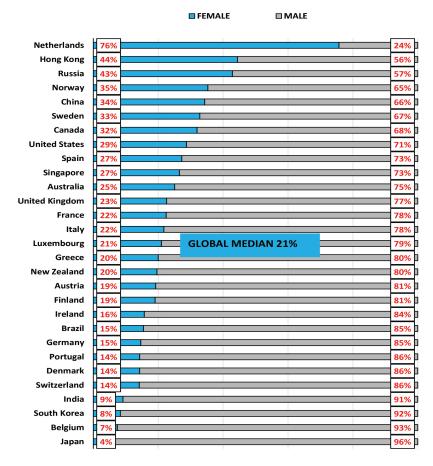
Data: SPGlobal, Professional Data, public and private firms

<sup>&</sup>lt;sup>2</sup> https://www.equilar.com/blogs/467-women-in-the-c-suite

#### **GRAPH 3:**

#### CTO gender representation ranked from highest to lowest

#### **Chief Technical Officer by Country and Gender**



Data: SPGlobal, Professional Data, public and private firms



#### THE CHIEF TECHNOLOGY OFFICER

It is well-documented that women are underrepresented in IT executive positions, and the chief technology officer (CTO) role is no exception. In fact, this position is among those with the lowest global medians.

We analyzed 2,803 positions of Chief Technology Officer in the finance industry. The global median was a meager 8% and both South Korea and Belgium, at 25%, as shown in graph 3, were the countries with the highest female representation. Austria, Japan, Italy, Greece and Portugal exhibited zero female representation in this leadership position.

Two of the BRICs countries, Russia and Brazil, scored at or above the global median while the remaining two, China and India, were well below the median. Seven European countries along with the United States and Canada again scored well above the median.

The gender gap for the CTO in financial services compares favorably to the overall average of 9% for all sectors combined according research published by Gartner (2019). However, keeping the pipeline

primed is a challenge. Although more women are choosing to grow their careers in technology, it will take time for women to move through the ranks and into technology leadership roles (Korn Ferry, 2019).

The pipeline problem in technology can be explained to some degree by the gender gap in math and STEM disciplines. Researchers report that the gender gap in math develops over the first six years of schooling. At entrance to the elementary level of school, it really doesn't exist. However by year six, females are observed to lose two-tenths of one standard deviation in scores on standardized math tests. The math gap is equivalent to 2.5 months of schooling. (Fryer and Levitt, 2009).

Interestingly, there are country and socio-economic interactions. For example, the gap did not materialize in Muslim countries, which was the single exception worldwide according to Fryer and Levitt (2009). Others report that the gender gap varies by race and socio-economic status and it is pronounced among white affluent girls (Dossi et al., 2020).



#### WHAT ARE THE ACADEMIC INSIGHTS?

CTOs play a prominent role in directing and shaping corporate innovation strategies, which are at the core of corporate survival and increasing shareholder value.

Responsibilities of the CTO range from conducting oversight of the selection process for research projects, to monitoring and assessing new technologies for potential adoption.

Academic studies have consistently documented a positive relationship between board gender diversity and firm innovation (Miller and Triana, 2009). Female representation on top management teams improves firm performance especially when the strategy is focused on innovation (Dezso and Ross, 2012).

However, a recent paper (Wu et al., 2021) singles out the CTO. Using 5,408 firm-year observations between 1991 and 2010, the authors found a significant and positive relation between CTO gender and innovation, as measured by both patent counts and patent citations. For example, When compared to their male counterparts, female CTOs exhibited a rate 1.826 times greater for patent counts, and a rate 1.741 times greater for patent citations. Additionally, the culture and environment enhanced the effect. The researchers found that the CTO gender effect is more pronounced for firms with a stronger supportive culture for innovation and when the CTO is more "powerful".

That is, if the female CTO also doubles as the CEO, the President, an executive/senior VP or a member of the board, the effect is enhanced considerably.



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